



Acerca de este libro

Esta es una copia digital de un libro que, durante generaciones, se ha conservado en las estanterías de una biblioteca, hasta que Google ha decidido escanearlo como parte de un proyecto que pretende que sea posible descubrir en línea libros de todo el mundo.

Ha sobrevivido tantos años como para que los derechos de autor hayan expirado y el libro pase a ser de dominio público. El que un libro sea de dominio público significa que nunca ha estado protegido por derechos de autor, o bien que el período legal de estos derechos ya ha expirado. Es posible que una misma obra sea de dominio público en unos países y, sin embargo, no lo sea en otros. Los libros de dominio público son nuestras puertas hacia el pasado, suponen un patrimonio histórico, cultural y de conocimientos que, a menudo, resulta difícil de descubrir.

Todas las anotaciones, marcas y otras señales en los márgenes que estén presentes en el volumen original aparecerán también en este archivo como testimonio del largo viaje que el libro ha recorrido desde el editor hasta la biblioteca y, finalmente, hasta usted.

Normas de uso

Google se enorgullece de poder colaborar con distintas bibliotecas para digitalizar los materiales de dominio público a fin de hacerlos accesibles a todo el mundo. Los libros de dominio público son patrimonio de todos, nosotros somos sus humildes guardianes. No obstante, se trata de un trabajo caro. Por este motivo, y para poder ofrecer este recurso, hemos tomado medidas para evitar que se produzca un abuso por parte de terceros con fines comerciales, y hemos incluido restricciones técnicas sobre las solicitudes automatizadas.

Asimismo, le pedimos que:

- + *Haga un uso exclusivamente no comercial de estos archivos* Hemos diseñado la Búsqueda de libros de Google para el uso de particulares; como tal, le pedimos que utilice estos archivos con fines personales, y no comerciales.
- + *No envíe solicitudes automatizadas* Por favor, no envíe solicitudes automatizadas de ningún tipo al sistema de Google. Si está llevando a cabo una investigación sobre traducción automática, reconocimiento óptico de caracteres u otros campos para los que resulte útil disfrutar de acceso a una gran cantidad de texto, por favor, envíenos un mensaje. Fomentamos el uso de materiales de dominio público con estos propósitos y seguro que podremos ayudarle.
- + *Conserve la atribución* La filigrana de Google que verá en todos los archivos es fundamental para informar a los usuarios sobre este proyecto y ayudarles a encontrar materiales adicionales en la Búsqueda de libros de Google. Por favor, no la elimine.
- + *Manténgase siempre dentro de la legalidad* Sea cual sea el uso que haga de estos materiales, recuerde que es responsable de asegurarse de que todo lo que hace es legal. No dé por sentado que, por el hecho de que una obra se considere de dominio público para los usuarios de los Estados Unidos, lo será también para los usuarios de otros países. La legislación sobre derechos de autor varía de un país a otro, y no podemos facilitar información sobre si está permitido un uso específico de algún libro. Por favor, no suponga que la aparición de un libro en nuestro programa significa que se puede utilizar de igual manera en todo el mundo. La responsabilidad ante la infracción de los derechos de autor puede ser muy grave.

Acerca de la Búsqueda de libros de Google

El objetivo de Google consiste en organizar información procedente de todo el mundo y hacerla accesible y útil de forma universal. El programa de Búsqueda de libros de Google ayuda a los lectores a descubrir los libros de todo el mundo a la vez que ayuda a autores y editores a llegar a nuevas audiencias. Podrá realizar búsquedas en el texto completo de este libro en la web, en la página <http://books.google.com>



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

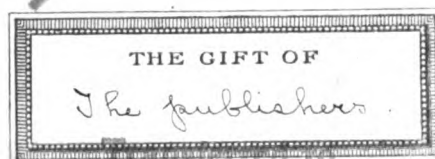
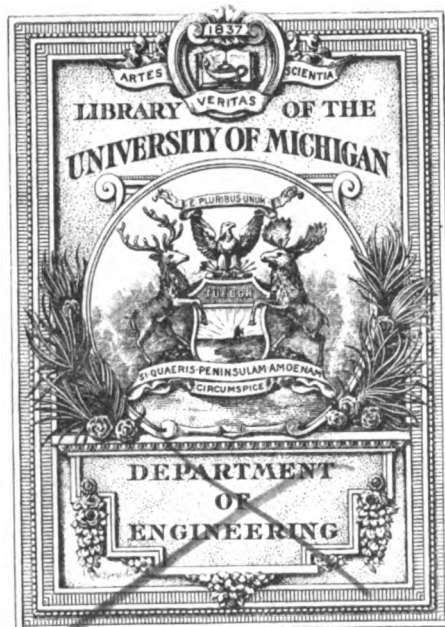
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



GENERAL LIBRARY

GEN. LIBRARY


TK

B45

BELL TELEPHONE NEWS

Official Publication of the
CENTRAL GROUP OF BELL TELEPHONE COMPANIES

// 1379
D
S



Bell Telephone News sends greetings to its 30,000 readers at the opening of its third year, and ventures to express the hope that the changes in style and appearance will meet with their approval

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

JULY 1, 1913

<u>STATES</u>	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	478,635	232,242	710,877
INDIANA	85,031	178,501	263,532
OHIO	168,827	171,543	340,370
MICHIGAN	198,989	57,075	256,064
WISCONSIN	<u>130,524</u>	<u>109,293</u>	<u>239,817</u>
	1,062,006	748,654	1,810,660

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., AUGUST, 1913

Number 1

Telephone Service at the Great Gettysburg Semi-Centennial Celebration

**Bell Company Provides Special Facilities for Encampment of Civil War Veterans
Held June 29th to July 5th.**

One of the memorable celebrations of all time came to a close on July 5th, when 55,000 veterans of the Civil War left their encampment on the historic battlefield of Gettysburg, Pa. The men of the North and South, many of whom had contended for victory on the same field, a half century before, spent the week beginning June 29th celebrating the Semi-Centennial of the great battle.

The United States Government and the State of Pennsylvania united in entertaining the veterans. The greatest tented field ever pitched in this country was provided. The war department assigned Major J. E. Normoyle to prepare the encampment and the result was a model.

This able officer and a corps of United States regulars consisting of two battalions of infantry, one squadron of cavalry, one battery of artillery, one company of engineers, one detachment of signal corps and 200 army cooks supplemented by 500 boy scouts as messengers, constructed the camp and policed it during the meeting. The camp was practically disease-proof and as comfortable as it could be made. Each guest had a cot. The drinking water, supplied in abundance through a system of pipes and delivered to fountains all over the 500-acre camp, was guaranteed to be pure. The problem of feeding was successfully solved, the visitors receiving the food served in the average home. The total cost to the United States and the State of Pennsylvania and other states, was almost \$3,500,000.

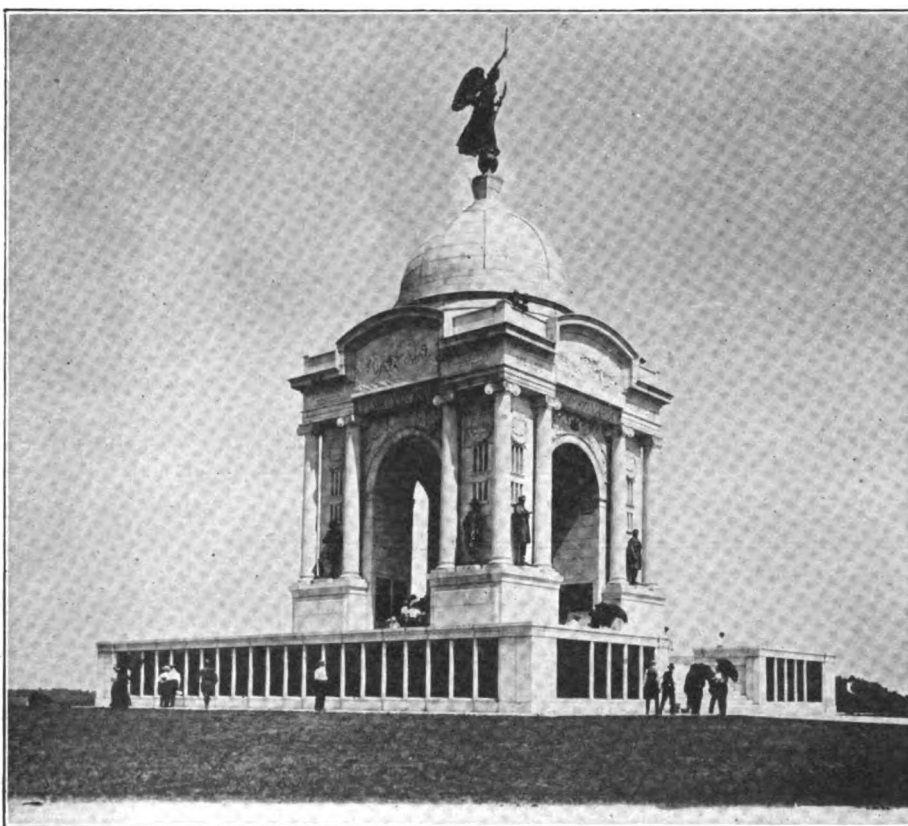
There were two telephone systems in service during the celebration: That of the United States Army Signal Corps under Lieutenant J. G. Taylor commanding a detachment of twenty enlisted men, and that of the Bell Telephone Company of Pennsylvania, with a three-position switchboard and two extra portable desk sets equipped for recording long-distance messages.

Ordinarily two positions supplied the needs at this point inasmuch as Gettysburg has only 103 stations. Lieutenant Taylor's men arrived June 11th but did not begin installation work until June 16th due to a slight delay in the receipt of equipment and supplies. Between that time and June 28th when the first veterans and visitors arrived, these men installed ninety-three stations covering a territory of thirty-eight square miles, and strung 126 miles of twisted pair on electric light poles through the camp and on short iron lance poles in outlying sections.

A two-position private branch exchange with two extra talking circuits for the lieutenant and his assistant, served these stations. On the first day of the encampment 23,000 people arrived. None of whom knew where to go. They, of course, telephoned, and it is estimated that 6,000 calls a day were handled by the lieutenant and his operating aid. Inasmuch as only one person could work at the two-position board at one time, it was necessary to put information calls from these ninety-three stations on the two extra talking circuit telephones handled by the lieutenant and his immediate subordinates.

The Signal Corps system connected the army telephones located throughout the camp, in the emergency hospitals, and at various historic sections of the large battlefield. Throughout the week it was estimated that 60,000 people visited Gettysburg and tenting accommodations were made for 52,000 veterans, regulars and boy scouts. There were 5,500 tents scattered over 500 acres. On the first day of the camp, 102 ambulance calls were telephoned, making a rather busy time inasmuch as they were all handled as emergency calls postponing any others that may have been in process of completion.

The Bell Company installed 7,000 feet of fifteen-pair emergency cable and 90,000 feet of twisted pair wire on electric



PENNSYLVANIA STATE MONUMENT ON GETTYSBURG BATTLEFIELD.

light poles to connect the public and the telephones throughout the encampment. There were fourteen public telephones at the information bureaus, three additional public telephones in the smaller hotels and a specially attended equipment at the main hotel, known as the "Gettysburg," two telephones at the governor's headquarters and stations served by private wires in the headquarters of the camp officials and cars of railway officials. The Pennsylvania Railroad had a private line to Harrisburg and two extra circuits for the Western Union were in service to that city. The A. T. & T. trunk lines were cut in at Beglersville, about five miles away, providing one direct trunk to Pittsburgh for Western business, one to Newtown Square for eastern business and two through others for nearer points.

There are on duty regularly five operators at Gettysburg who were supplemented by three extra operators from nearby cities. In addition the traffic superintendent and traffic supervisor from

of the many celebrations held at Gettysburg. This, of course, was due to the fact that none had ever been prepared with the same generosity nor had there been such an enormous attendance as was the case during this encampment.

New Chicago Directory

The June, or summer issue of the Chicago telephone directory has been distributed to subscribers. The new book, while naturally very large, is more compact than any recent book. In an effort to reduce the size, which for some time has threatened to make the volume unwieldy, four instead of three columns of listings are printed on each page, increasing the average number of names to the page from 350 to 460 and reducing the total number of pages in the alphabetical list from 945 to 739. The reduction was made notwithstanding an increase of 10,000 or more listings over the February issue.

The book, as usual, lists all subscribers

for fourth place, the Millers having a shade the better of it with thirteen columns to twelve for the Browns. The Nelsons, Williams' and Petersens (the last named being counted with the Petersens) are about a tie with nine columns each. The Jones' follow with eight columns, trailing just ahead of the Davis', Clarks, Hansens (and Hansons), Olsens (and Olsons) and Thompsons, with seven columns each. The distant relatives or namesakes of President Wilson also come in the seven-column category. The Murphys lead the Ryans and O'Briens, their listings occupying six, four and a half and four, respectively. One page, or four columns, suffices for a roster of the clan of Campbell.

Three pages of the new book are devoted to a detailed list of the new rates prescribed in the ordinance recently passed and a list of the express toll rates to close suburban points.

The book is bound in telephone blue and presents a handsome and striking appearance.

Unique Alumni Meeting

High school graduates of Waukegan, Ill., will long remember the twenty-ninth annual banquet of the High School Alumni Association.

The program of the banquet which was given in the gymnasium of the Waukegan Township High School June 21st, was "Telephones." The telephone numbers were: "Long Distance," Bess Bower; "Receivers and Transmitters," Jacob Schwartz; "Calling the Number," Vine Sylvester; "The Girl at Central," W. Stamford Pearce. The "Next Number, Watch for It," proved to be the talking manikin, who under several names has furnished amusement to thousands of people. This time his name was "Gink" and as usual he was the "whole show." Mr. Freeman of the Chicago company, operated "Gink" and his speeches and songs kept the visitors and graduates in the best of humor for a half hour.

Following the interesting entertainment by "Gink," retiring President Smith explained the details of the mechanism, telling the banqueters where the operator was seated during the operation. He said "Gink" is in great demand throughout the country, from large cities, and had heard that he was already booked for passage to New York. On suggestion of Mr. Smith, the guests heartily voted thanks to the telephone company for having delegated "Gink" to visit Waukegan and help make up one of the best programs ever seen at an alumni banquet in the city.

Fire at Sycamore

A bolt of lightning, entering over the cables, completely destroyed the switchboard of the De Kalb County Telephone Company at Sycamore, Ill., early on the morning of July 14th. The night operator called for help to men in a restaurant across the street from the exchange and the fire department was quickly summoned. Not much damage was done to the building.

Toll service was re-established at 11 a. m. the same day on a No. 105 board set up in the adjoining building, and the principal factories were connected up to the same board. An order for a new No. 10 four-position Western Electric switchboard was placed immediately and complete local service will probably be restored before this issue of the BELL TELEPHONE News reaches the reader.



LIEUTENANT TAYLOR, COMMANDING SIGNAL CORPS.
The lieutenant superintended the repair gang on a motorcycle.

Harrisburg were present to lend aid during the busiest time.

The Western Union had four receiving stations on the ground and sending stations in the Press camp.

The Pennsylvania Department of Health had combination baggage and passenger cars sidetracked and made available for hospital use. The seats were removed from the passenger sections and cots were installed in the baggage sections, while the physicians, nurses and telephones as well as ambulances for field use were furnished by the Medical Chirurgical Hospital in Philadelphia. Motorcycles came from the Philadelphia Police Department for use by the signal corps installers and linemen in making hurried installations and disconnections and removals where stations had not been placed to the best advantage.

Physicians and nurses came from cities in all parts of the state.

The telephone traffic was much heavier than had even been experienced at any

in Chicago and suburbs, and those in the nine counties outside of Cook operated by the Chicago Telephone Company in Illinois and Indiana. On June 1st there were 403,158 Bell telephones in this territory. The number of listings in the book is approximately 320,000, beginning with A. & A. Art Metal Ceiling Company and ending with Frank Zywicki.

While the scientific investigator into the genealogy of the people of Chicago and vicinity might secure more exact results by using the names in the census or city directory, an examination of the names in the telephone directory is interesting. Among those who subscribe for telephones the greatest number are the Johnsons, there being no less than twenty-three columns of the book devoted to subscribers of that old English name alone. The Smiths, also an English race, are second with twenty columns, while the Andersens and Andersons combined, a family of Swedish extraction, come third with seventeen columns. The Millers and Browns run close

Public Utilities of Chicago*

By A. R. Bone, Commercial Superintendent, Chicago Telephone Company

Chicago, as a city, is one of the marvels of this age! From the little frontier trading post of 1840, it has grown, in the allotted "three score years and ten," to a city of nearly two and one-half million people; and this in real growth, not the mushroom growth of the frontier boom town, but substantial, permanent growth based on citizenship enthusiastic with the Chicago spirit of progress, the "I Will!" which has made Chicago a world metropolis.

Much of this development has been made possible by modern facilities provided by the public utilities companies of the city, which, by extending means of communication, or increasing comfort, have not only made possible the busy center of downtown Chicago, but have also, in the districts far removed from the center of the city, opened up to thriving business and comfortable residences, sections that, but for them, would still be cabbage patches.

Turn back your memory but a few years, to the time of street cars pulled by horses over streets dimly lighted by kerosene lamps, to the time when there were no telephones, and communication (when greater rapidity than the mail was desired) was through the medium of messenger boys, and when each manufacturer had his own steam power plant, with its waste and expense; and consider the important relation of modern public utilities to the city's development.

The first of these in the field was a company to furnish illuminating gas. This was established in 1849 and furnished gas for but a small district on the North and South sides. It was not until ten years later that similar service was given to the West side. During this time the city was constantly extending and soon reached the point where a plan of more rapid transit seemed desirable and, in 1858-9, the first lines of horse-propelled street cars were put in. At this time the population of Chicago was only 112,000, and the cars ran only as far north as Lake street and south to Thirty-first and from the lake west to Halsted street. The entire area of Chicago was less than twenty square miles.

In the next ten years the population almost trebled and the area doubled, but, beyond a gradual growth of the utilities in service, there was not noticeable change.

Within the next decade, in 1876, was held the momentous Philadelphia Centennial. This celebration stirred the country from end to end, but, in the excitement, but little notice was taken of the greatest wonder of all displayed there—the telephone. At first considered simply as a mechanical toy, its importance and field of usefulness were not immediately realized, or appreciated, but soon its possibilities were recognized and in 1877 the service was started in Chicago with a list of ten subscribers.

By 1880, the population of Chicago had passed the half million mark, and people began to wonder where and when the growth was going to stop! The telephone service had been accepted in a small way as a possible adjunct to business; the telephone exchange was oper-

ating with almost 1,000 subscribers—about one to every 550 people in Chicago.

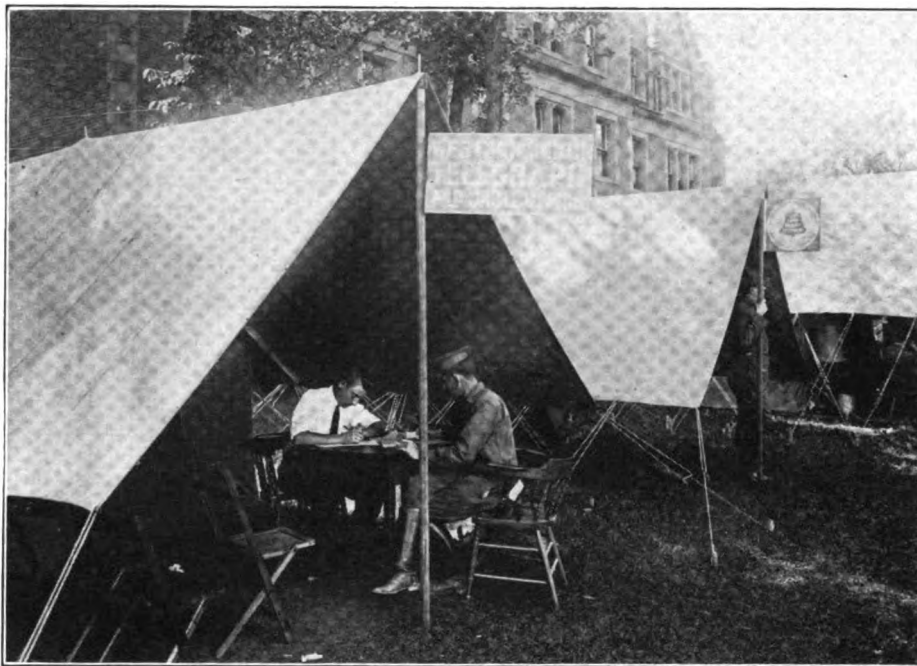
Within the next ten years, from 1880 to 1890, the population almost doubled, and passed the one million mark. The area was also extended, and the number of telephone subscribers had grown to almost 8,000—one to every 143 people in the city. During this time the electric light, which had had almost its first publicity at the Philadelphia Centennial, became an assured and commercial reality, and people recognized its possibilities and that of electrical power. A company was formed to furnish electric lighting and to furnish a central distributing point for electrical power. This was a tremendous step in advance. Under the old method, the manufacturer had had to maintain his separate power plant, with its expensive installation and maintenance, and here was a proposition where, by turning a switch, he could draw all the power necessary from the central distributing point, and likewise illuminate his factory in a manner that

had been constructed and, by 1901, the passenger traffic had almost doubled, rising from two hundred million per year to three hundred and fifty million.

The completion of the Drainage Canal, during the same decade, made possible the entry into the Chicago market of electrical power, generated by water.

The growth of all the public service companies has been so gradual that our acceptance of the comforts and conveniences and advantages of the service furnished by them comes as a matter of course, unless we stop to compare the past with the present.

Today the consumption of electricity for power and light alone is over fifty times as great as it was in 1896. Chicago is at this minute using this electrical current at the rate of 400,000 electrical horsepower. To the layman, these figures do not convey much, but consider that if this power used for one minute were connected up to one of our ordinary incandescent lamps of sixteen candle power, the ener-



WESTERN UNION RESERVE TENT AT GETTYSBURG ENCAMPMENT.

left no dark corners with their possibilities for accidents.

About this time it was realized that street cars, using horses as motive power, were not up-to-date, and cable cars were introduced. These, with their accelerated traffic along the main arteries, opened up to possibilities of usefulness for residence, or business, districts that were far beyond the radius of the horse car and impossible to use under slower method of transportation, so enabling the city to spread and care for its rapidly increasing population, relieving the congestion in the older districts.

Within the next decade came the World's Fair, with its inducement and absolute necessity for more rapid transportation and communication. The slow moving horse cars and cable cars were replaced by those driven by electric motive power and, in 1890, the street railroads had carried in a year, two hundred million passengers.

During this time the elevated railroad

gy would be sufficient to run that lamp for 1,750 years; or, if we turn it in another direction, employing it in running one of our "Through Route" cars, it would propel that car at the rate of twenty-five miles an hour for 5,968 hours, or eight months and nine days, and over a distance of 149,200 miles—almost six times around the world.

The transportation lines, with their many arms stretching out for the convenience of the Chicago public, operate over 1,000 miles of track in Chicago alone, and over them are transported annually 1,200,000,000 passengers, a daily average of 3,287,671 persons. There is one section of track in Chicago that every day, in the hour of maximum traffic, carries more trains than any other in the world in a similar time.

In addition to this, sixty-three miles of railway run under Chicago forty feet beneath the surface connecting the business houses and freight stations and transporting heavy freight and supplies of all kinds.

*Report of Subdivision Committee No. 62 (City Transportation and Public Utilities) of the Ways and Means Committee of the Chicago Association of Commerce, of which Mr. Bone is chairman.

Nor, must we forget the conveniences offered to the consumers of gas to the number of almost 575,000 and to accommodate whom, requires a system of 2,700 miles of pipe. The methods of illumination, in use before the advent of gas and electricity seem now pitifully primitive in comparison with the present comfort and convenience of modern gas and electric lights, but it is really only a few years since kerosene lamps and lanterns were considered almost the height of luxury. And consider, too, the forward stride made with the introduction of gas as fuel in our kitchens. We are so accustomed now to its convenience that we seldom stop to appreciate how this new fuel, with its immediate ignition and extinction, removed from the shoulders of the housewife two-thirds of the burden and toll that made the preparation of a meal an ordeal to be dreaded. And this additional comfort and convenience has been obtained, not, as might readily be imagined, at an increased cost, but actually at a lower cost than the older method.

The telephone, the slowest of all the inventions to take its place in the commercial world, had at last outgrown its reputation of being a mere toy, and, with its far reaching lines of communication, has been adopted by Chicago as peculiarly her own. The advantage of practically instantaneous communication has been appreciated by Chicago and has enabled Chicagoans to say that, compared with the other large cities of the world, Chicago is pre-eminent in telephone development.

An average of 1,884,591 messages a day originate over the city's 330,000 telephones, of which there is one to every $7\frac{1}{2}$ of her population in the city—1,700 telephones to the square mile; and this number of telephones is being constantly and rapidly increased. A new telephone is going in every four minutes of the working day. During the reading of this paper, two new telephones have been added to the list. And to serve all this, requires the use of almost 900,000 miles of wire; enough to encircle the earth thirty-six times!

The saving of time which this equipment represents—and time is more than money in Chicago—is a highly important item. If each call in a day's business saves one-half hour for someone, the aggregate time saved each day in Chicago is 107 years. The investment of the public utilities companies, amounting to one-half billion dollars, is an evidence of faith in Chicago and its future development. The public utilities companies give employment to 50,000 Chicago citizens and in the care of employees, these companies are in the forefront of carefully administered welfare work.

There are few if any of Chicago's commercial activities that are not dependent upon the modern facilities supplied by the public utilities companies. The welfare of every citizen, too, is promoted by such facilities every hour in the day. This is the measure of the service of the public utilities companies to Chicago—service that is the most complete, the most efficient, the best in the world.

Wrong Number

Speedy (telephoning from farmhouse to garage): I guess you will have to come and get me. I've turned turtle.

Voice: This is a garage; you want the aquarium.—Judge.

Mr. Vail at Lyndon Commencement

Address of President of American Telephone and Telegraph Company to Graduating Classes of Lyndon Institute and Lyndon School of Agriculture, Lyndon Center, Vt., June 20, 1913.

Graduates:

This is more to you than a school commencement; it is to you who are starting out to contend with stern realities the real commencement of life.

So far, your work has been with the history, the theories, and the experience of others. Now you must come up against concrete conditions and through your own experience find out the real value of what you have learned, learn how best to utilize it and how to make it produce for you results; in other words, you will make your own history and get your own experiences.

You probably have lots of ideals, you are doubtless strong in hope and faith, but as you go along many of your ideals will be shattered and many of your hopes will be dampened and you will at times require all of your persistence and faith to keep from utter discouragement.

It is from your failures and your disappointments, if rightly used, that you will get your valuable experience. It is by overcoming and rising above them that you will achieve your successes.

Lincoln once said to the effect, that intelligent perseverance only would accomplish great results. Nothing truer was ever said, and if you will take it to your hearts, think well what it means, analyze it with intelligence, apply it conscientiously, you need have no fear of your future. Intelligence in all things is necessary to success, and your success will be in the measure and to the extent that your plans, ambitions, hopes, and particularly your labor and your actions are controlled and directed by intelligence and common sense.

And in this connection I want to speak of labor. We hear much of the dignity of labor, the nobility of labor, that the laborer is worthy of his hire, that labor is entitled to what it produces.

Labor performed in a shiftless, unthinking, unintelligent, instinctive way is neither dignified or noble and never is profitable.

The only thing that makes labor profitable, dignified or noble is the intelligence that is used in directing it, and that intelligence which directs it may be either your own or that of others, and to the extent that it is yours, you will get the full value that is produced by both your labor and your intelligence, and to the extent that it is the intelligence of others which directs your labor, you must share with the others the value of what is produced.

Do not confound labor directed by intelligence with expert or skilled labor, which may be performed in a wasteful, unintelligent, perfunctory or instinctive way. Expert or skilled labor, when working on the separate units of a large structure or on a large organization must be directed by a supervising intelligence that the separate units may be brought, each into its proper place, with as little indirection or loss of effort as possible.

Intelligent labor or intelligent direction or organization of labor is that which enables you or others to produce

greater results with less, or at the least the same amount of labor than it would otherwise produce, and the one whose intelligence brings about such result is entitled to and should get a share of the savings or the increased results.

You can't get something for nothing, you can't live by your wits and feel comfortable or respectable—any gain at another's loss will react on you. All the great and permanent gains in this world came through constructive work, creating new values to old things by making them better and more useful, by creating new things of value to the world, or by the organization of those forces which bring about these results. This applies as closely to the farm as any other pursuit or vocation in life.

I will repeat here in substance what I have often said before—First: Determine what you want to do, then acquire an understanding of all that is necessary to accomplish it most profitably and efficiently, then go about the doing of it in an orderly and effective way. By knowing what you want to do and how to do it in advance of the doing there is no waste effort or lost work, and you will find in this the most effective offset for the high cost of living that has yet been devised.

Observe; keep your eyes open; when you see a farmer with a neat looking farm, sleek, well-fed cattle, a good horse, nice comfortable carriage, clean front yard and good garden, just watch how he does it and if you can catch him at work, for that kind of a farmer has lots of time to read and visit and take such recreation from his labor as every man should take, you will find he works effectively, thinks out and plans his work, does not dawdle but works when he does work. He directs and drives his work, his work doesn't direct and drive him. He believes that a stitch in time saves nine. He doesn't wait for the door or gate to break itself down for want of a nail or a stone to drive it. Remember that it doesn't take any longer, if as long, to do a piece of work when it should be done than it will take to do it after it should have been done, and besides when done in time it is much more effective.

The best kept house is that of a housewife who never seems to be busy or in a hurry. If you want anything done promptly, go to a busy man.

Be beforehand, to use an old-fashioned expression, and unless it is in the legitimate conduct of your business, don't make use of credit and never use your credit in any business that you are not thoroughly familiar with and thoroughly understand,—if you are bound to speculate make it a cash transaction. It doesn't take any longer to earn a dollar before you spend it, than it does to earn it after it is spent, and besides if you have it in hand you are apt to spend it more wisely. Wait for luxuries and even comforts until you can pay for them and you avoid the discomforts of the future pay day. Over-expansion of individual credits is what produces bankruptcy and panics. No power on earth can produce

either when credit is kept within legitimate and reasonable bounds.

We have been speaking of intelligence. Don't fall into the mistake of forming your own opinion of your own intelligence or capacity—let others do that. It is only in politics that your own claims to your own greatness are taken seriously and where promises will be taken sooner than a good record. In real life it is reputation that obtains confidence for you, and reputation is based on performance, not on promise.

Be jealous of your reputation. You may sometimes even after the exercise of the best efforts be unfortunate, but if you have a good reputation you can soon get on your feet, but don't get into the

ferent to each other, cannot make a successful school.

Mutual support and confidence—cooperation—teamwork on the part of all and respectful subordination on the part of the pupils only can make a good school. If you will only realize this and act in accordance with it we will have a school or schools to be proud of.

To the pupils and children: It is upon you—it is upon the graduates that the school sends forth, that the future reputation of the school rests. Your future standing in the community or in your business or your profession will be largely based upon the work that you are doing here or in other schools; remember this when tempted to neglect

urban neighborhood and hoped to make his fortune. For days he sat undisturbed in his little office, staring out at the dusty roads or twiddling his thumbs. On the afternoon of the fourth day he saw a man crossing Ogden Boulevard diagonally, headed for his door. Surely this was a customer. He must be made to feel that business was flourishing.

As the man stepped over the threshold Bob had the telephone receiver at his ear and was talking earnestly into the transmitter.

"That's correct," he said as the man stood before him. "Right. We will accept your fifteen cash tomorrow and let the thirty-thousand remainder stand on a ten-year mortgage. What? Yes, I'll



PICNIC OF CENTRAL UNION EMPLOYEES AT GALESBURG, ILL.

habit of being unfortunate. It is not often that misfortune is persistent without a cause, and when there is cause beyond your control a good reputation will stand you in great assistance.

Don't depend too much on others. People get tired when called on too much.

The strongest pull and the heaviest push in this world is that which you yourself create. Remember if others have push or pull it is because of some force they exert through some reputation they have created. Observe—see how they obtained it and get one for yourself. Be selfishly independent of, but kindly helpful to others and you cannot help but enjoy life.

Deliberate and with careful consideration choose your vocation in life and then stick to it. The other man's job looks easier, but it isn't. Don't be all the time thinking you would rather do this or would rather do something else. You know Bret Hart said once, or rather one of his characters did, that he had noticed that people didn't generally get their "d'rathers." I might "d'rather" be standing on the platform in a graduating class listening to the good-natured advice of some old man, but the wishing wouldn't do me any good. So I will wish you good luck and everything that is good in this world, and I would be willing to guarantee it to you if you will be as earnest in your work as I am in my words to you.

To parents and all: We have a school or schools here which should be in every way acceptable to all of you. We have the trustees, the educators, the people, the pupils and the children. But endowments, trustees, educators, parents, children, each working by themselves indif-

ferent to each other, cannot make a successful school.

Don't fall into the error of thinking that in these days there is no opportunity—there is more now than ever. Look at the list of names that are interested in the great constructive work of the world, those who have accomplished something, and you will find ninety-nine or more of every hundred started at the bottom rung of the ladder and unaided except by their ability, enterprise, persistency, climbed up from rung to rung to their present position. I have to do with many thousands of young people starting life, and it would astonish you to see the quickness with which the to-be successful attract attention to themselves. Bear in mind the words, attract attention. The to-be successful ones attract attention—it is never necessary to have attention called to them.

Have proper respect for your position, whatever it may be or wherever it is. We are all of us units in the social structure, and each in his or her own particular position an important unit. If each fills that position, accepting all its responsibilities and fulfilling all its requirements, not disturbing all around with unrest or dissatisfaction, being ever ready to move into other positions as opportunity and conditions make it possible or desirable, all will go well and each will have done his duty to the state, the family, and to himself.

Making an Impression

Bob Dwyer, fresh from college, opened a real estate office in an attractive sub-

bring the deed around at 11 tomorrow morning. Good morning."

Bob hung up the receiver and turned an important visage to the visitor.

"Now, sir," he said, "what can I do for you?"

"Why, I just came over," said the man, grinning, "to connect your telephone instrument with the wires."—*Harper's Weekly*.

Retirement Under Pension Plan

The companies composing the Central Group of Bell Telephone Companies, namely: Chicago, Central Union, Michigan State, Wisconsin and the Cleveland telephone companies, have, through their various Boards of Directors, adopted the following resolution:

RESOLVED, That on January 1, 1914, every officer or employe of this company who shall at that time be seventy years of age or more shall be retired, and if entitled thereto under such plan for employes' pensions, if any, as may be in force at that time, shall be pensioned; and

RESOLVED, That thereafter every officer or employe becoming seventy years of age shall be retired at the end of the month in which he reaches such age, and if entitled thereto under such plan for employes' pensions, if any, as may be in force at that time, shall be pensioned; and

RESOLVED, That the officers of the company be and they hereby are empowered and directed to take such action from time to time as shall be necessary or appropriate to carry these resolutions into effect.

Important Conference of Officials

An important conference of officials of the Central Group of Bell Telephone Companies was held in Chicago early in July, pursuant to a call of Vice-President Burt. Methods and practices in vogue in the conduct of the business throughout the Group were discussed at length, the meeting extending over a period of three days. Forty or more topics were scheduled for discussion, mainly pertaining to plant and engineering problems, and while there were some differences as to details, the fact was developed that there is practical uniformity in the matter of meeting the various contingencies that continually confront telephone managers, engineers and plant chiefs.

Many valuable suggestions were received and the getting together of those who direct the affairs of the Associated Companies in Illinois, Indiana, Ohio, Wisconsin and Michigan will tend greatly to strengthen the organization and prove of benefit to the service.

On Wednesday evening, July 9th, Mr. Burt was the host at a dinner, given in honor of the out-of-town officials, at the Union League Club. After-dinner speeches were omitted save for some remarks by Mr. Sunny, who directed the attention of his hearers to the necessity for care in connection with the financial affairs of the Companies. While he was by no means pessimistic as to general business conditions he felt that caution and economy should be exercised in all of our dealings.

Mr. Richardson discussed telephone matters as to their legal relationship, while Mr. Burt dwelt upon the best method of maintaining cordial relations with the public and public officials, summing up with the declaration that in making good service the watchwords, telephone managers would most quickly and surely gain and retain the good-will of the people.

There were present at the dinner:

B. E. Sunny, President.
L. G. Richardson, General Counsel.
C. E. Mosley, Treasurer.
W. I. Mizner, Secretary.
B. S. Garvey, General Auditor.
E. H. Bangs, Fundamental Plant Engineer.
Clifford Arrick, Manager Publicity Department.
H. F. Hill, General Manager, Chicago Telephone Company and Central Union Telephone Company of Illinois.
W. R. McGovern, Engineer, Chicago Telephone Company and Central Union Telephone Company of Illinois.
W. R. Abbott, General Commercial Superintendent, Chicago Telephone Company and Central Union Telephone Company of Illinois.
E. A. Reed, General Manager, Central Union Telephone Company of Ohio.
Allard Smith, Engineer, Central Union Telephone Company of Ohio.
E. E. Ranney, Plant Superintendent, Cleveland Telephone Company.
J. W. Cherry, Plant Superintendent, Central Union Telephone Company of Ohio.
L. N. Whitney, General Manager, Central Union Telephone Company of Indiana.
B. D. Wilber, Engineer, Central Union Telephone Company of Indiana.
W. R. Hirst, Plant Superintendent, Central Union Telephone Company of Indiana.
H. O. Seymour, General Manager, Wisconsin Telephone Company.
W. H. Hobbs, Engineer, Wisconsin Telephone Company.
L. Killam, Plant Superintendent, Wisconsin Telephone Company.
A. von Schlegel, General Manager, Michigan State Telephone Company.
C. Kittredge, Engineer, Michigan State Telephone Company.
C. L. Boyce, Plant Superintendent, Michigan State Telephone Company.

A "round robin" was sent J. G. Wray, Chief Engineer, expressing regret at his absence.

Another pleasant incident connected

with the conference was the fraternal greeting extended to Frank Ketcham, of the Western Electric Company, who had been invited to attend the first day's session. Allard Smith, W. R. McGovern, J. W. Cherry and W. Rufus Abbott rendered an impromptu quartette entitled "P. B. X. Boards No. 4," a theme near to their guest's heart.

Mr. Ketcham was visibly affected when he arose to acknowledge the tribute paid him, declaring that he was deeply touched and that it would be an inspiration and an incentive to renewed and effective effort. Expressing a desire to be present at future gatherings of a similar nature, Mr. Ketcham made a graceful get-away, assisted by Mr. Burt.

Good feeling and an earnest desire for co-operation and teamwork, both of which are essential to the success of the conduct of large organizations, marked all the deliberations of the conferees.

Mr. Kingsbury's Luck

On May 2nd a rainbow trout weighing eight pounds, three ounces, and measuring twenty-seven and one-fourth inches was caught in the Little Manistee River by N. C. Kingsbury, Vice President of



MR. KINGSBURY AND HIS PRIZE.

the American Telephone and Telegraph Company.

Toward the last of April Mr. Kingsbury and a party of friends started on a fishing trip in Northern Michigan, devoting one day to clearing out the Pere Marquette River, while two days were required to work similar havoc on the Little Manistee.

The Little Manistee is one of the most beautiful streams in the country, traversing a virgin forest of white and Norway pine, and is ideal for trout fishing.

Our illustration shows Mr. Kingsbury (on the left) just after his tussle with the eight-pounder, which lasted forty-five minutes and occurred near Trilby,

two and one-half miles east of Peacock. Humorists may be inclined, from envious or other motives, to suggest a connection between this catch and the place near which it was made. There is no evidence, however, that hypnotic means were resorted to either in making or reporting the incident. The fish was caught on a No. 8 Pharmacheene Belle, with a five and one-half-ounce rod; this fact has been attested, as is the claim that it is the largest rainbow trout caught in the Little Manistee River so far this season.

Last year a son of C. O. Smedley, of Detroit, took from the same stream, just below Indian Club, a rainbow trout that weighed nine pounds and measured twenty-nine inches. The fact that the measurements of the Smedley trout are a trifle larger than those of the one shown in the illustration speaks volumes for Mr. Kingsbury's self-restraint and moderation of statement and we suggest that his seasonal claim be given unqualified acceptance.

Other members of the party were Dudley E. Waters, of the Pere Marquette Railroad Company; Dr. William Darach, of New York, and Charles Hammond, of Detroit, all of whom cheerfully concur in the above suggestion.

Married at Telephone

The depredations of Cupid are becoming bolder. It has been no uncommon thing for the little god to waylay the girls wherever he met them and sometimes to sneak in over the wire. But few indeed have been the times when he walked in the front door of the exchange and consummated his fell purposes right then and there. A case, however, is now on record.

William Starkloff, Bell night operator at Port Clinton, Ohio, was married July 1st to Edna Brown, an operator at Fostoria. The ceremony was performed in the Port Clinton office in the presence of a few friends. Mr. Starkloff did not take any time off for the event.

The two became acquainted as long-distance operators.

Fantastic but Useful

Passengers and visitors on the mammoth new German steamship *Imperator* were much impressed by a tremendous gray German war eagle, carrying a gold crown on its head and a great golden sphere clutched in its talons, perched upon the bow of the big vessel.

The figure is useful as well as ornamental and symbolic. Inside its ample body is a seat for the lookout, who peers through two small glass windows in the bird's breast. Every hour of the day and night a man is stationed there. He communicates with the bridge by telephone. It is both a picturesque and comfortable station for a lookout.

The great liner is equipped with a complete telephone system connecting every corner.

At the Counter

Subscriber: I want my bill adjusted. You have me charged with too many calls for ——. It was my dullest month and it would have been impossible for me to use the number of calls charged!

Clerk: Sometimes our subscribers use the telephone extensively during the dull seasons to boost their business. Perhaps you or your assistants did it this year.

Subscriber: Young man, I'm an undertaker!

Mr. Sunny on Public Service

Interview in the Philadelphia Public Ledger, July 16, 1913

B. E. Sunny, president of the Chicago Telephone Company, and closely connected with the Bell Telephone interests of the whole country, talked interestingly to-day in regard to the relations of the telephone companies to the public. A disinterested observer would say that Mr. Sunny had a hard time in his dealings with the Chicago city government, for there have been years of negotiation about rights and rates, monopoly, competition, etc., but he preserved an impressive calm in temper and manner.

The attitude of the company toward the city, of the city toward the company and of the public toward both, is probably now as satisfactory as ever in the history of the concern, and the traffic of the Chicago Telephone Company is growing at a tremendous rate. There has been some effort to secure an absorption of the Automatic Company into the Bell Company, but this cannot be done without action of the City Council, and there are no negotiations in progress at the present time.

Mr. Sunny discussed especially the tendency of public sentiment, of law and of practice toward an acknowledgment that there was in the very nature of a telephone company's business something of the element of monopoly.

ANTI-TRUST LEGISLATION.

"Following the example of the Federal Government in adopting the Sherman anti-trust law with reference to corporations engaged in interstate business," he said, "all or nearly all of the states adopted similar laws with respect to corporations operating within the respective states.

"These laws, among other things, prohibit consolidations of competing enterprises, rate agreements or any combination of any kind which would eliminate or tend toward the elimination of competition.

"While the laws were largely intended for the purpose of putting a stop to the building of competing railways, electric light, gas and other public service properties, a considerable number of which were built to sell out, the restrictions were in some states made so sweeping as to prohibit even small business houses from consolidating, merging or selling out to each other. They did not exclude any line of business, whether conducted by a corporation, partnership or individual, public or private, and were based on the fundamental proposition, since proved in many cases to be erroneous, that there must be continuous and unlimited competition in all business.

"No one will claim that the anti-trust laws were not justified by the general conditions which prevailed at that time, and although they were not strictly enforced with reference to concerns already in existence, the fact that they were in force had a deterrent effect.

"The business of building properties to unload at big profit to the older companies received a serious setback.

"It can be said that at the time these laws were passed they were designed to correct errors and evils occurring at a time when American business in utilities was finding itself.

"The telephone service, electric railway, light and power were of small volume twenty-five years ago, as compared with the present development. Almost

every Western city had from two to five electric light plants, occupying different zones in some cases, but in most cases in active competition with each other.

"While the standard price for electric current was twenty cents per kilowatt hour this price was cut in competition to fifteen cents or lower, the competitive price in many cases representing a loss to the manufacturer because of the inefficiency in the appliances and methods, and also for the reason that the current was used but a few hours out of the twenty-four, the plants remaining idle the remainder of the time.

"Many Western cities had competing gas plants, and in the fight for business the standard price was reduced from \$1.50 to \$1.25 or even to \$1 per thousand. This latter price, considering the cost of manufacture, was regarded in the gas business as just as ruinous as the competitive prices existing in the electric light business. Yet, compared with the prices which prevail to-day, from twenty-five per cent. to fifty per cent. lower, which are in the main satisfactory, they were excessively high and greatly hindered the growth of the industry.

LESS COMPETITION.

"The remarkable change which has been wrought in twenty years is due to the consolidations which, with the general consent of the municipalities, the press and the public, have been worked out, and which have led to the almost total discontinuance of competition in Western cities in electric light, electric power, gas, water and street railways.

"Numerous small, poorly built competing plants, rendering an unreliable service at high prices, though competitive, have in one city after another given way to one or more modern powerhouses, equipped with efficient machinery, all managed by skilful and competent officers and employees of a single company and furnishing a universal and thoroughly reliable service at low prices.

"An analysis of the utility situation as a whole will show that a passenger can be comfortably carried a longer distance on a single fare of five cents than ever before; that reliable service of electric current can be secured at a lower price than ever before, while the charge for telephone service, whether in the city or the country, is so low as to put that service within the reach of almost every one.

"It is entirely safe to say that the utilities are furnishing a larger and better service for a smaller compensation than can be secured in any other way; that is, street car service, electric light, gas, telephone service and water, all indispensable and furnished generally on a noncompetitive basis, cost less in proportion than rents, clothing, shoes and food-stuffs which can be had on a competitive basis. What has been accomplished with reference to the utilities has been at the dictation of the inexorable laws of commercial enterprise and progress, and notwithstanding the anti-trust laws of the various states. The results have been so plainly and satisfactorily evident and so beneficial that these laws, with respect to competition, have with general consent remained inoperative.

"On the other hand, legislative bodies, recognizing the changes which have occurred in public sentiment and the management, equipment and service of utili-

ties, have switched over from anti-trust legislation to regulatory measures, and in twenty-five or more states the utilities have been put under the authority of state commissions with almost unlimited powers.

CONSOLIDATIONS AUTHORIZED.

"The evolution which has occurred is clearly shown in the fact that the states which, ten to twenty-five years ago, said that there must be no consolidations, in their utility laws adopted within the past few years specifically authorize the utility commissions to approve consolidations along lines where the interests of the public will be protected.

"What took place in Michigan is clearly illustrative of what has occurred in many states. In 1899 an anti-trust law was passed which prohibited consolidations, mergers, rate agreements or combinations of any sort destructive of competition. Under the so-called Giles law, passed three years ago, the Railroad Commission of the state received power to approve consolidations of telephone companies. Under that power the Michigan State Telephone Company was authorized to buy the property of five telephone companies in and around Detroit which for years had been in competition with the Michigan company.

"Suit was brought by an outside connecting company to set aside the order of the commission authorizing the consolidation, claiming that the act of the Legislature authorizing the merger was unconstitutional. The case went to the Supreme Court and was decided in favor of the consolidation. The decision, among other things, included the following:

No restraint of trade was made out, because the only effect upon the business is to increase and improve it, to that extent one corporation, when properly regulated and controlled, is preferable to a number of distinct corporations acting independently.

"The decision of the court is based on the best experience of the past twenty years, and will probably be the decision of similar bodies under similar circumstances for a long period. It is an accurate reflection of public sentiment on the subject, many illustrations of which might be quoted. One that is at hand at the moment is a letter by the Mayor of Decatur, Ill., addressed to the two competing telephone companies asking that a meeting be held with the city authorities with a view of doing away with the competitive situation which has existed in that city for some years and which has become intolerable."

ONE SYSTEM FAVORED.

Mayor Dinneen says:

As nearly as I can be informed of the desires of the people, through the instrumentality of the public press and the public and private expression of its citizens, I believe that they would be favorable to an arrangement that would insure one system of telephones in the city, that system to furnish the very best service known to the art of telephony, keeping pace with all its modern inventions and yet that service furnished to the consumers at the minimum of cost, and it occurs to me that the time is opportune for such a condition to be brought about, provided it can be done so along just and equitable lines to the public as well as the companies interested.

This is not the thought of a theorist, but of a man who takes a practical view of affairs and one living in a small city, where competition in the telephone service has usually been much more severe than in the larger centers. His opinion is a good example of the change of attitude that has taken place throughout the West. Mr. Sunny's policy has done much to bring about this change.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
 A. BURT, *Vice President*
 W. I. MIZNER, *Secretary*
 C. E. MOSLEY, *Treasurer*
 L. G. RICHARDSON, *General Counsel*
 B. S. GARVEY, *General Auditor*
 J. G. WRAY, *Chief Engineer*
 CLIFFORD ARRRICK, *Manager Publicity Department*

H. F. HILL, *General Manager*,
 Chicago, Ill.
 E. A. REED, *General Manager*,
 Columbus, Ohio
 H. O. SEYMOUR, *General Manager*,
 Milwaukee, Wis.
 L. N. WHITNEY, *General Manager*,
 Indianapolis, Ind.
 H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, *Editor*

BELL TELEPHONE BUILDING - - - CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

AUGUST, 1913.

The New "Bell Telephone News"

With this issue we present the BELL TELEPHONE NEWS to our readers in a new form.

We believe the slight reduction in the size of the pages will make the paper more convenient as well as more attractive. None of the valuable established features will be discontinued or abridged to any serious extent, and it is hoped to add new interesting features constantly.

The new typographical dress will be clearer, making the paper, we believe, more readable.

The cover pages will be run in colors and the cover design changed from time to time.

We bespeak for the News your continued co-operation and assistance to the end that we may continue to make it the best telephone publication in the world.

The Corporation Dollar

Are we, and by "we" in this case is meant the public generally, hitting the corporation dollar too hard and too often? This is a query put recently with great force by the *Ishpeming Iron Ore*, a publication in northern Michigan edited by Mr. GEORGE A. NEWETT.

"It is popular to jump on the dollar of the corporation. People do it because there is always much applause whenever the act is accomplished. No matter where you go it is the same. The dollar of the mining corporation, the railway corporation, or the corporation of any other kind is the public target. It gets it going and coming, on the sides, in the middle, anywhere and everywhere.

"It is the most abused, and most misrepresented of any other dollar. And yet it's a big dollar in our country's activities. It keeps the mines, the railways, the ships, the mills, furnaces and factories going. It gives to men a place at fair wages, and it places America on the map industrially.

"But there's danger of hitting this dollar too hard and too often. There's such a thing as overdoing the slugging. People and things much beaten are apt to get nervous and slink out of sight. It would be a pretty bad business to drive the corporate dollar into retirement. While we 'soak' it in the neck and in every other spot of its anatomy we need it, and we need it every hour.

"We are soaking the dollar of the corporation to hear the acclaim of the populace, and we will keep on at this pastime until the dollar is completely knocked out, and then what?

"There will be committees formed in every community to look after the spending of the small funds to provide flour for bread, to fill the tin cups with soup, to deal out an occasional pair of shoes for the widow's child.

"You laugh! But many recall just such scenes and at a time in our history when we should have been enjoying the greatest prosperity. It wasn't so long ago, either.

"Just keep legislating the corporate dollar out of existence until you accomplish your object, and then what?

"Where do you get your dollars?

"It is a fool game, short-sighted and the act of brainless children. Better stop long enough to take a good look ahead before lifting your club for another blow."

Individual Action and Political Theory

When the first telegraph message was sent over the wires, Alfred Vail was the operator at the receiving end. And when Alexander Graham Bell constructed his first crude telephone line in Canada, and then went to the States to seek capital, Theodore Newton Vail nephew of Alfred, was one of the few men who were from the first convinced of the utility of Bell's "toy."

The last-named Vail, now president of the Bell System and the Western Union Telegraph Company, will celebrate his sixty-eighth birthday today. He was born in Carroll County, Ohio, July 16, 1845, and as a boy emigrated to Iowa where he worked as a telegraph operator, "pounding the brass" in the so-called "Morse code" that was in reality invented by Uncle Alfred. A little later he entered the railway mail service, and rose to be the general superintendent at Washington. In the meantime he met Bell, and in 1878 became general manager of the infant telephone corporation. He traveled all over America, coaxing reluctant capital out of its hiding places, and installing exchanges in many cities.

Later he went to South America to introduce the telephone, and also inaugurated the American electric railway system in Buenos Ayres. Mr. Vail owns a big farm in Vermont, which he proposes to turn into an agricultural college for New England youths.

Mr. Vail has done his full share in the world's work and in his later years has undertaken an enterprise of great public importance. There are few who will contend that he has not earned his wealth or withhold praise from him for so wisely distributing a portion of it.

Surely Mr. Vail's ideas are worthy of a respectful hearing and one must at least listen to him as the irreconcilable opponent of government ownership of telegraph lines.

Mr. Vail has in the telephone business put up the best existing argument for monopoly.

And there he stops and is stoutly opposed to giving that monopoly over to the government.

Mr. Vail's name will live long after him in the history which at some future day will recite the growth of social and political conditions.—*Herald*, Joliet, Ill., July 16th.

The Sword and the Telephone

That the Balkan war, which has deprived Turkey of almost the whole of her European territory, will add an important chapter to the history of civilization is not to be doubted, although the existing broil among the victors may delay its writing.

It has been said of Great Britain that she carries the sword in one hand and the Bible in the other—in other words, she carries the Christian religion into all conquered territories. Whether the Balkan allies will altogether extinguish the Mohammedan religion in former Turkey in Europe remains for coming generations to learn, but the touch of a higher civilization is already being felt in at least one part of the conquered domain.

The American consul general at Athens, Greece, reports that a royal decree has been issued authorizing the expenditure of 1,550,000 drachmas (\$229,150) for the construction and equipment of new telegraph and telephone lines within the kingdom and the newly acquired territories. This means that there is to be no delay in beginning the work of providing one of the first essentials of modern civilization—the means of quick communication.

Turkey has been the most backward of all civilized nations to adopt modern ways. Up to this year there were very few if any telephones in the Turkish Empire. We have recently recorded the opening of a small system in the ancient capital of Christendom—Jerusalem. In Constantinople the Western Electric Company is just about to complete a system for the city and suburbs. But in the provinces outlying the capital the telephone bell has never been heard and might not have been heard for many years had the soil remained under Ottoman rule.

Backfire

A small panic was created recently in the town of Whitehall, Ill., by the report, started by some joker, that all the grocers had decided to discontinue credits and deliveries and take out their telephones.

Of course, it was nothing but a hoax, as far as the telephone was involved, and the eight grocers of the town hastened to deny it. As one of them expressed it "Telephones are a neces-

sity in business. Patrons pay for the convenience." Another said he got many orders over the telephone from people who would not come to the store.

On the heels of this little flurry comes the announcement from Cassopolis, Mich., that the business men of that place, who are engaged in a controversy with the local telephone company over the question of rates, are feeling the effects of a "strike," which they instituted against the company. The smaller towns nearby and some larger ones farther away are enjoying increased trade as a result of the circumstances. Not being able to communicate with business houses in Cassopolis, farmers telephone their orders to other places.

Service

There is an old Hoosier saying something like this:

"After the undertaker and florist are paid the family doctor usually gets a dollar on account."

The saying expresses in a nutshell the relative valuation placed on commodities and on service.

The undertaker and the florist have furnished something concrete—something which has a clearly understandable cost and therefore understandable value. The doctor has furnished service, something of which the cost is little understood and the value of which is likely therefore to be denied.

The average person will pay a grocery bill without question; he knows the supplies have cost the grocer something. But the same man may not think it costs the doctor anything to render his service, that he is not out very much if he is not paid.

A telephone company is in somewhat the position of the doctor. The thing it sells and attempts to collect for is not tangible. The user does not know what it costs to produce it.

Happily, this condition of popular misconception is passing away—slowly, of course, as it is an axiom that misconceptions die hard.

The publicity departments of the companies are doing effective work informing the people of the intricacies of the business of rendering telephone service. The telephone employees are supplementing this as opportunity offers to describe and explain the multifarious details of our work.

To reiterate an oft-repeated declaration, we "sell service, not telephones."

Telephones and Neighbors

Not far from Lawrence, Kan., says a paper published in that city, is a neighborhood where they have an agreement that when an "emergency call" comes over the telephone everyone must drop out and give the emergency the wire. At the same time, however, each subscriber has a mental reservation to the effect that after the call is in he may take down his receiver and hear what the trouble is. The other day the call went over the line, and it was for a doctor. A child had been taken ill suddenly. The doctor said he would get there soon, and in the meantime the child should be wrapped in warm blankets, hot irons put to her feet, and a few drops of whisky, if it could be procured, diluted with hot water, be given to her. When the doctor arrived he found eight neighbors were there first; two had hot irons, two had warm blankets, and four had flasks of whisky.

This would be a dreary neighborhood without telephones and neighbors, would it not?

One Wrong Number

No excuse is intended to be offered for any operator who carelessly or negligently gives a subscriber a wrong connection, but it is extremely consoling to know that the results are not always purely evil. Besides, how could a telephone girl be expected to differentiate among all the people named Johnson living in a large city?

MR. JOHN L. McDONALD, a Washington business man, is one person who has no "grouch" over the way a call was handled. He recently had occasion to call a certain Miss Johnson and asked the information operator for her telephone number. The operator connected him with a telephone listed under the name of Johnson and a voice answered:

"You have the wrong number. It is my cousin you wish to speak to."

And so it had been up to that moment, but thereafter it was this wrong number Miss Johnson only who interested McDonald. Love found the way to bring about a meeting and at last accounts the two were enjoying a honeymoon.

It is hard to find anything on the credit side of a wrong number transaction. The memory of this incident should therefore be cherished sacredly by all traffic people.

Telephone Insanity

It used to be the custom to charge things against the telephone when no other scapegoat was convenient, but, in America at least, that custom is now out of fashion. In Germany the service is not so fortunate.

Dr. Strauch, a Berlin physician, sitting as a commissioner in lunacy, recently expressed an opinion that men, even of the most steady nerves, might have their mental balance disturbed by exasperation at getting no reply from "central." He recalled the case of another physician, said to have become insane as the result of anger at the telephone service.

If true, this is probably an extreme case. In any case, it shows that the German telephone service, which is operated by the government, needs attention. The officials might profitably visit the United States and learn how to conduct the telephone business. While the service here is perhaps not faultless, it certainly is not of such a quality as to drive people insane.

Always on Duty

Every minute of the day—there are 1,440 of them—the Bell telephone is on duty; so, also, are the long-distance lines which connect with far-away cities and towns.

The whole Bell system is on duty 1,440 minutes a day—and if any of these minutes are not used their earning power is lost forever.

The telephone user wants service at once. That is what the Bell system endeavors to give—immediate attention and instantaneous connection. It strives always to be ready to receive a call at any point and connect the customer with any other point—without postponement or delay.

It would be much cheaper and simpler if telephone users would be content to stand in line and wait, or if their communications might be piled up to be forwarded during the slack hours; or if the demand were so distributed as to keep the whole system comfortably busy for 1,440 consecutive minutes.

But the public wants and demands immediate and universal service and the Bell System meets the public's requirements.

Telephones and "Boosters"

The Central Union and Chicago Telephone Companies, with the co-operation of the Iowa Telephone Company, performed a much appreciated service to the Trade Extension Committee of the Chicago Association of Commerce recently in equipping the committee's special train for direct telephone service during the two weeks' trip. The members, many of whom were away from their business in Chicago for the entire two weeks, were assured by this service that they need not be out of immediate touch with their offices and homes for more than a few hours at any time.

The increasing dependence of business men on the telephone makes such facilities imperative to the man of affairs who desires to absent himself from his desk for an extended trip. Thus it may be said that the telephone is one of the agencies which make these pilgrimages possible.

True, Perhaps, if Not Important

To know whether your telephone has rung while you are absent, place a piece of carbon paper between the bell and the clapper. When the bell rings the clapper will make a mark.—*Weekly Paper.*

If a piece of red carbon paper be inserted, the clapper will make a red mark, and so on. This is a fair sample of the home-made suggestions for improving your telephone service. We are led to inquire as we pass on what good it would be to know that your telephone bell rang while you were absent?

Set an Example

In every possible way the telephone companies are striving to complete the education of their subscribers in the proper manner of using the telephone. In this connection it should be remembered that example is stronger than precept. Telephone employees who use telephones have a good opportunity to show subscribers how to use the lines so that the work of the operators may be as smooth and effective as possible.

Cleveland Annual Picnic

Friday night, July 11th, the majority of the employees of the Cleveland Telephone Company retired earlier than usual preparatory to a strenuous day at Chippewa Lake on Saturday. Of course on Saturday morning they were greeted by the never-fail picnic shower and wind storm, but this is so customary that it kept very few away. When the train left the Baltimore & Ohio depot at 8:30

for lunch and baskets were opened in the grove near the lake. After luncheon, bathing, bowling, boating, tennis and dancing were the chief attractions, while the merry-go-round was the main point of interest to the children. The afternoon ball game between the Installation and Equipment departments was a very exciting game, as the score of 12 to 10 in favor of the Installers shows. After the ball game a panoramic picture was taken.

75-yard dash for men—1st, Harry Siebert, umbrella; 2nd, Gus Bahr, knife.
50-yard dash for girls (14 years and younger)—1st, Marion Carr, hair ribbon; 2nd, Gladys Olson, handkerchief.
Sack race for boys (14 years and younger)—1st, Everett Schaeffer, baseball mitt; 2nd, Peter Magnus, baseball mask.
50-yard dash for ladies—1st, Clara Kubasch, bar pin; 2nd, Blanche Shurr, toilet water.
100-yard wheelbarrow race for men—1st, J. W. Steele, pipe; Nora Imlig, bar pin. 2nd, Gus Bahr, necktie; Clara Kubasch, toilet water.
75-yard running race for couples (ladies' choice)—1st, H. Dobbert, bill case; Miss



ANNUAL PICNIC OF CLEVELAND TELEPHONE EMPLOYEES' AID SOCIETY AT CHIPPEWA LAKE.

a. m. the nine coaches were filled with the usual crowd of happy picnic goers, and upon arriving at Chippewa Lake the rain had stopped and the sun was shining brightly.

The first event was a baseball game between the Commercial and Assigning departments. The game was not as one-sided as the score of 12 to 1 in favor of the Commercial would indicate. The infield was very rough and therefore made it difficult for the infielders to field with their usual accuracy. The outfielders had a very strong wind to contend with and also the long grass under foot and several clouds which under ordinary circumstances would have been easy outs, counted as hits. Nevertheless the game was well played and thoroughly enjoyed by the enthusiastic spectators.

Around 1 o'clock a foot race was made

Milwaukee Annual Picnic

Not in the least daunted by drenching rain and mud, over 3,000 employees of the Wisconsin Telephone Company attended the annual picnic at Washington Park, Milwaukee, July 23rd.

The league baseball games in the morning were called off, but a match played under indoor baseball rules was won by Captain L. C. Barnes.

The event of the afternoon was the wheelbarrow race, the one-wheeler containing a girl and propelled by a male worker. The ladies' fifty-yard dash and potato race in the morning were not run because of mud. Valuable prizes were given for both first and second places. In some of the contests, two or three heats had to be run. The results follow:

Hinze, bar pin. 2nd, Carl Thompson, scarf pin; Nora Fuchs, toilet water.

75-yard sack race for men—1st, Ed Banaski, bill case; 2nd, Paul Gillis, necktie.

Relay race for couples (75 yards for men; 25 yards for ladies)—1st, Carl Thompson, handkerchief; Nora Fuchs, bar pin. 2nd, M. B. Dougherty, scarf pin; Hattie Smith, toilet water.

50-yard dash for girls—1st, Clara Kubasch, bar pin; 2nd, Mariam Smid, toilet water.

Potato race for ladies (free for all)—1st, Martha Kubasch, bar pin; 2nd, Lynda Zaubert, toilet water.

The following were officials—Starters, Miss Rosche and Messrs. Killam, Schilling, Krizek, McKivitt, Bendinger and Moore; judges at finish, Messrs. Seymour, McEniry, French, Koepke, Lincoln, Hobbins and Brennan; clerks of course, Messrs. Barnes, Stelzel, Bell, Kynaston, Eastey and Oscar Heyden. Picnic committees—Arrangements, Mr. Moore, chairman; athletics, Mr. Schilling, chairman; transportation, Mr. Stelzel, chairman; supplies, Mr. Loring, chairman.

Of course, all the operators could not attend the picnic at one time, but a very liberal schedule had been arranged on account of some picnics of the local retail merchants that permitted a very large number of the operators being off duty a great part of the day.

During the afternoon, after the weather had brightened up, the day was ideal for a picnic, and after the races were over, groups of operators, carrying pennants with the names of their exchanges were to be found upon the grounds preparing their lunches for the evening.

One of the features of the indoor baseball in the morning was the very effective pitching of Auditor of Receipts Booth, from Chicago. He not only showed that he could play baseball, but promptly after that was over he showed that he was a real picnicker, as he kept busy all the time either boating or active in whatever else was going on.

C. M. Loring's attention to the supplies that were to be furnished, taking care of the headquarters, ice cream stand, etc., added a great deal to the convenience and pleasure of the picnickers. Mr. Loring was on the job from early in the morning until late in the evening, and it is needless to say that that particular part of the picnic was a complete success.



PICNIC GROUP AT CHIPPEWA LAKE, JULY 12TH.

Lower row, left to right: Mrs. Stevens, Mrs. Bodmer, Master Stevens, Mr. Davis, Mrs. Dawson, Mr. Dawson.
Standing: Mr. Englehart, Mr. Bodmer.

Warm Weather and How to Deal With It

By Dr. Alvah H. Doty, Medical Director Employees' Benefit Fund Committee, Bell System, Western Electric Company and Western Union Telegraph Company

As the summer approaches the question is frequently asked by what means may the uncomfortable and sometimes dangerous conditions caused by hot weather be avoided. In reply it is usually advised to keep as cool as possible, abstain from improper food and particularly from alcoholic drinks, and avoid undue exercise. While these are valuable suggestions it will be of interest to know a little more fully why specially depressing influences are present in hot weather and what constitutes the protection against these conditions.

Cold weather is rather stimulating and acts as a tonic to the system, while warm weather is quite the reverse, for it is enervating and relaxing, and unless we are in good physical condition it is apt to cause depression and lead to other uncomfortable conditions. Furthermore, warm weather is very destructive to food-stuff and other products, as decomposition rapidly ensues, for germs or bacteria multiply much faster when the temperature is high.

Some misconception exists as to the direct cause of the prostration which occurs during the summer months and which may range from a slight feeling of depression to a condition which involves considerable danger. It is commonly believed that the more serious cases are generally due to the direct rays of the sun or "sunstroke," whereas it is really more often caused by a continued high temperature without special regard to exposure to the sun rays and is appropriately termed "heat-stroke."

Nature goes far to protect us against excessive heat as it does against everything else that is a menace to our health. In this instance it extends protection largely through the activity of the sweat glands in the skin, for in hot weather they abstract an enormous amount of water from the blood, which upon reaching the surface of the skin becomes rapidly evaporated and cools the body and in this way aids in keeping it at its normal temperature of about ninety-eight and one-half degrees (Fahrenheit), although the temperature of the air may be much higher. No better illustration of this can be given than that which occurs in connection with the work of a "stoker" or "coal heaver" in the hold of a steamship.

These men are often exposed to a temperature of 125 degrees or more, yet by profuse sweating they are able to maintain the normal temperature of the body. Still there is a limit to the equilibrium which nature is able to maintain in this direction, for if exposure to excessive heat is prolonged the temperature of the body cannot further be controlled and will quickly rise and may in some instances be followed by a fatal heatstroke; for this reason the men just referred to are allowed to work below only for a short period of time and every practical means of supplying fresh and cool air to this part of the ship is made use of.

Cases of prostration are not so apt to occur on the first day of a heated spell for then the resisting power of the body is better able to overcome the effect of this depressing influence, but following this the number of cases rapidly increase.

The danger of overcrowding, insufficient air and other unsanitary conditions during the summer months will be easily understood, for they add greatly to the depressing effect of the heat. It is for this reason that a large majority of cases of heat prostration occur in the tenement house districts.

Abroad the public have long ago learned the value of providing within its municipal boundaries spaces which act as breathing places and which in various ways are made sufficiently attractive and convenient to bring the poorer classes away from their unhealthy environments in order that they may secure at least temporary relief from the depressing influence of the summer months.

A practical and permanent way of avoiding the unpleasant effects of hot weather in the large cities and one which may be taken advantage of even by the poorer classes is residence in the suburbs; the value of this cannot be too strongly presented, particularly where there are children in the family, for at least fresh air and space may be secured in this way. The expense is no greater, and the very effective means of transportation which are now available makes it practical and easy to live some distance from the workshop.

There is much that we can do to relieve the discomfort of hot weather in the way of a careful selection of food and drink in order that we may diminish the work thrown upon the stomach and intestines, for during this period of the year these organs are apt to be not as well prepared to perform their function as at other times; besides the food we buy is not always fresh and good.

We have in a previous article learned that meat, particularly when it is taken in large quantities, undergoes fermentation and putrefaction in the intestinal tract, and is largely the cause of the discomfort which oftentimes follows its use. This is much more marked during the warm weather, and therefore meat should be sparingly eaten during the summer.

Fish is a good summer food provided it can be obtained fresh. This is necessary, for it decomposes very rapidly in warm weather and if eaten in this condition may cause unpleasant and even serious results.

Cereals, fresh vegetables and fruit are also very valuable articles of diet during the warm weather.

Nothing is more unfit for human consumption during this time of the year than the decomposed and filthy fruits, drinks, etc., which are found for sale on the streets, particularly the ice cream which is dispensed from the so-called "hokey pokey" wagons. This stuff is consumed chiefly by children in the tenement house districts and is usually served to them on pieces of brown paper. As a rule, no one but the manufacturer knows where this is made or the manner in which it is adulterated, or what becomes of that portion which is left from the day's sale, although it is presumably worked over for the next day's output. Considering the care which is taken by municipalities in connection with its milk supply it is difficult to understand why the sale of such an unhealthy product as this should be allowed.

No greater or more practical charity could be inaugurated than the establishment throughout the tenement house districts of depots where pure and refreshing fruits, drinks and ice cream could be supplied at a low cost in order that it may take the place of that now purchased from the street vendor.

While this article does not admit of sufficient space to discuss in detail the selection and care of milk, particularly during the warm weather, it must be said that no article of food is so vitally important as this to mankind, particularly to the young, and there is no food which is more unfavorably affected by the heat. Therefore every possible means should be taken to secure milk in its best and healthiest condition. "Dipped" milk, or that which is dispensed from cans in the various stores, should never be used, for the receptacle is opened whenever a pur-



ROOTERS AT AFTERNOON BALL GAME AT CLEVELAND PICNIC.

chase is made and probably many times besides, therefore bottled milk should be used instead, for although it costs more, the protection it affords really in the end constitutes a matter of economy. Milk should always be kept close to the ice in order that the growth of bacteria may be prevented.

During the summer and in the presence of suspected danger, milk may be boiled or pasteurized; while the former is quite certain to destroy all germs which may be present, it renders less valuable some of the nutritious constituents of the milk, therefore for prolonged use pasteurization is employed. This refers to the treatment of milk by subjecting it to a temperature of 150 degrees for twenty minutes, then placing it on the ice. While this temperature does not injure the constituents of milk, as occurs in boiling, it will render harmless the germs of tuberculosis and other forms of bacteria. This simple method may be carried out as follows: The bottles containing the

drinks in large quantities and of bad quality who first succumb to heat prostration.

Another very important means of avoiding the unpleasant results of hot weather is to keep the bowels properly open, for if this is attended to there is less danger of the absorption of poisonous products from the intestinal tract and the temperature of the body is kept under better control. An occasional dose of Rochelle salts or one of the other saline laxatives which do not irritate the stomach or the intestinal tract are helpful agents in this direction.

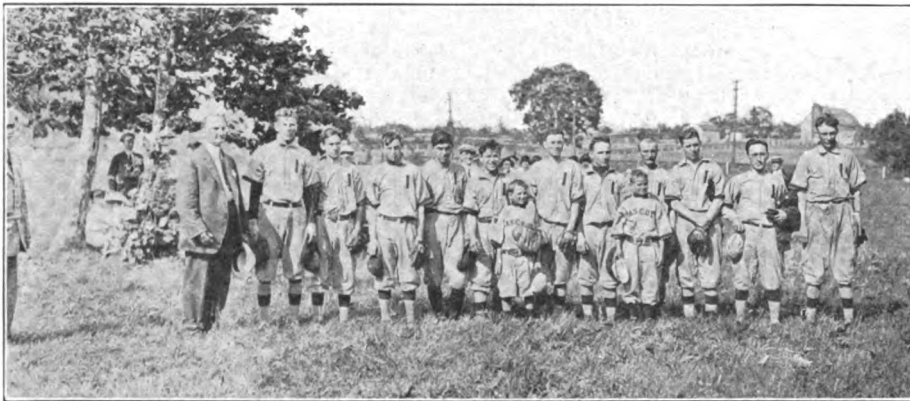
Some exercise is not only healthy but necessary even in very hot weather, unless a person is suffering from some organic disease or some other debilitating physical condition which contraindicates it. However, judgment should be used in selecting the form of exercise.

A vacation is a very important aid in preserving a good physical condition during the summer, but a large part of the

The lesson we should learn from what has been said regarding the heated term, as it is called, is not that it is to be regarded as an evil which can only be dealt with by change of diet, rest, etc., but rather that the summer months constitute the normal climatic conditions of a certain season of the year and that it is not intended we should unduly suffer if we properly prepare ourselves for it. In other words, we must so far as possible keep ourselves in good physical condition at all times, the question of diet, etc., being a part of personal hygiene.

Hot and cold weather, like disease, select for their victims those who are in poor health or who are careless about their physical condition, while on the other hand those who present a formidable resisting power are but little affected by the various climatic changes.

No better or more striking illustration of this can be given than in the instance of athletes, particularly baseball players, for these men during the hottest part of the day are continuously engaged in the most active exercise for two or three hours, and it is rare that we hear of heat prostrations among them. This simply means that by careful training they have developed a resisting power which is but little affected by hot weather. It will be found that they are subjected to the most careful discipline as to their habits, food, etc., and while it may not be possible or practicable for all to attain this splendid physical condition we can use it as a text and remember that the preservation of our health is largely in our own hands, it matters but little what season of the year is present.



INSTALLERS TEAM, WHICH WON BALL GAME AT ANNUAL CLEVELAND PICNIC.

milk, properly sealed, may be placed in a pan of water, the latter being raised to a temperature of 150 degrees (Fahrenheit) and kept at this point for twenty minutes. The bottles are then to be removed and placed close to the ice. As a matter of economy so far as the ice is concerned, the temperature of the milk may first be lowered by subjecting the bottles to a flow of cold water.

The use of powders or other mixtures which may be advertised as preservatives of milk should be avoided, for they cannot be depended upon and may do considerable harm.

There is an urgent call for fluid on the part of our system during hot weather, for as it has already been stated the skin is constantly abstracting large quantities of water from the blood which must be replaced, therefore the question of summer drinks is a matter of considerable concern. Water is the most valuable agent for this purpose, for it is the natural drink and is most satisfying and should be freely taken. Iced water moderately used, chiefly between meals, is not only not injurious but helpful, for it supplies the need of fluid and aids in reducing the temperature of the body. The so-called "soft" drinks are of value provided they are not adulterated, but unfortunately this only too often occurs, principally because there is not proper supervision over their manufacture. The excessive use of alcohol contributes largely to the uncomfortable or serious conditions which occur in hot weather, for it is commonly those who use alcoholic

population of a city cannot enjoy this pleasure but must depend upon some form of night or day entertainment and relaxation. Unfortunately the great mass of people in this country do not select the recreation which is of most value to them. In this we are far behind European countries, for there they secure the most suitable and valuable means of rest and comfort at the minimum cost. Observing foreigners as well as others who have watched the struggling mass of humanity who daily visit our various seaside resorts and who with little children are packed in crowded cars both coming and going, and while at these resorts are encouraged at every point to eat improper food and take alcoholic drinks, and who return home at night tired, sunburned and irritable and at considerable expense, cannot quite understand what benefit is derived from this form of so-called pleasure.

The more quiet inland places should rather be selected for a day's outing. While sea air has its advantages, but little is derived from it in a day's excursion, particularly when the weather is hot and there is a constant exposure to the direct rays of the sun. There are many inland places which provide shade, quiet and a lower temperature and an abundant supply of good drinking water, the latter being a very important consideration. A luncheon taken from home offers far more pleasure than the purchase of food of a questionable character. These conditions offer a better opportunity for rest and recuperation.

Telephone Employment Bureau

Some mutual telephone companies in the south operate a sort of employment bureau for the benefit of their subscribers. The switchboard operator is supplied with a book in which she records names of all parties wanting help and also names of all who want work. Thus, if you want a hand for a day, week or longer, you call up the operator and she refers to her book and gives you names of people who want work. If you want to work, you call central and she gives you list of people wanting help in your line of work. Of course, if she has no names listed when a call comes in, she puts down the name of the party calling and gives out the name when opportunity offers. This plan has been very successful in some localities, and ought to work well with most mutual companies.

Telephones for Chinese Town

The Western Electric Company has signed a contract with the authorities of Changsha, China, for the installation of a thousand line, modern central-battery telephone exchange. It is hoped that the work will begin November 15th.

A Mystery Explained

Engineers Walsh and Keyes of Detroit were recently examining the lines between Mt. Clemens and New Baltimore. They paused to note a transposition. This, as every engineer knows, requires a steady eye and careful observation.

After a while the silence was broken by a farmer in an adjacent field calling out to a friend: "Say, Hi, I reckon I know now why we have to pay such high rates to the telephone company. It's to support fellows like these here to do nuthin' but stare all day at the sky."

Vault and Conduit Rearrangement

When one has seen all the bustle of the city and heard all of its noise, he may feel that he has exhausted its complexity. He has, however, discovered only the top layers. Under the bargain basements of the department stores is another basement or series of basements where machinery for lighting, running elevators, etc., is located and where goods are packed for delivery or shipment. Under the fine hotels are basements for all sorts of machinery and all sorts of work. The city's streets are honeycombed. Did you ever stop to think just what you were walking on when in a downtown thoroughfare? If you are on the sidewalk you are probably over a barber shop or a restaurant. Neither are these places to be despised, as some of the finest in the city are in basements. This is not always understood by persons not accustomed to the city. One Chicago man had friends visiting him and thought he was treating them handsomely enough when he took them for dinner to one of the city's best restaurants. Afterward one of the guests remarked, "Well, that is pretty good for a basement place." The city man now saves money and stays above street level with visitors.

But in the street, there are also numerous other structures. There are the water and sewer systems of the city and the gas mains. These are not all small pipes, but many in which a man could stand erect. There are the conduit systems of electric light companies, telephone companies, telegraph companies and street railway companies. Under many of the downtown streets is also the bore of the Illinois Tunnel Company, whose underground trains carry freight between the railway depots and most of the principal stores of the city, and to other places as far south as the Stock Yards. It is easy to see what added confusion there would be if a great part of these structures was above instead of below the surface of the street.

The placing of telephone, telegraph and electric light conductors underground means greater safety to the people and the service as well. While underground cable is continually exposed to dangers of various sorts, it is still much safer than it would be above ground, where it would suffer from storms. During the storms of February and March the service in the city of Chicago proper was scarcely affected at all. In laying conduit and constructing vaults every effort is made to disturb the streets as little as possible, so when a street is to be paved notice is given to all parties interested, that they may do all necessary work in the street in advance of the paving.

Washington street has had what amounted to a gap between La Salle street and Jefferson street, due to the absence of any bridge across the river, and very poor pavement on both sides. Now the new bridge is complete, with a steel viaduct meeting it on the west over the railway tracks and a newly paved approach on the east. The street is to be repaved from La Salle street to Market street, and the city water pipe extension department, the gas company and the telephone company have all been busy putting their respective plants in order.

The telephone company's conduit is to consist of forty-eight ducts in Fifth avenue both north and south of Washington street; from La Salle street to Fifth avenue are twenty ducts; west of Fifth ave-

nue on the south side of Washington street and nearly opposite the main entrance of the Telephone Building is a large vault. The cut shows this vault looking east and shows the formation of fifty-two ducts entering from Fifth avenue. This vault and conduit are provided to care for the cables to be used

and Washington streets. From this vault the conduit run goes west to the joint tunnel of the Chicago Telephone Company and the Commonwealth Edison Company under the river, through which is the principal connection between the offices on the west side and those in the central and southern parts of the city.



MAMMOTH CABLE VAULT ON WEST WASHINGTON STREET, CHICAGO. This picture gives a splendid idea of what underground work in a large city means.

when the Main and Franklin switchboards are put into the new Telephone Building.

West of the large vault shown in the picture is another and smaller one having forty-eight ducts between it and the large one and sixteen ducts leading into the old Telephone Building. These ducts are to take a part of the cables now in the telephone company's subway at Franklin

Clock Still Running

A Western Union clock was found to be running and keeping good time after a fire had badly damaged the building in Ludington, Mich., in which it was located. The same fire did considerable damage to the telephone exchange, as reported in the July issue of the BELL TELEPHONE NEWS.

Beginnings of Science

By B. V. Hill, Chicago

The readers of the BELL TELEPHONE NEWS are engaged in the commercial prosecution of a great technical enterprise. Still we would not "forget the base degrees by which we did ascend" and can take an interest in the beginning of the exact sciences which have led to the present high development of the industries. It is proposed to give brief accounts of the lives of a few of the great founders of these sciences, and so to trace the growth of scientific knowledge from its half speculative beginning to its perfection in the present day engineering arts.

The ancients appear to have been highly skilled in the art of building, as is shown by the pyramids in Egypt and the aqueducts and many old buildings in Rome. At the Cement Show recently held in Chicago a piece of concrete from the Temple of Romulus was exhibited. This cement is 2,000 to 2,500 years old and still strong. The science of these people was very largely speculative, however, and purely speculative science very seldom leads to anything. One is inclined to agree with the newsboy who chanced to read in one of his papers that the scientists predicted that the sun would support life on the earth only 10,000,000 years longer. He remarked: "Them scientists is foxy. They never make no statements on a dog fight nor a prize fight nor 'n 'lection nor nothin' you can hold 'em down to a bet on."

Mathematics is very old, but for a long time it was only an intellectual amusement. Astrology is as old as the history of civilization, but it was used to forecast future events and probably, as at present, to separate the fool and his money. Alchemy is old, but the alchemists were busy in the everlasting search of something for nothing; they were looking for the Philosopher's Stone whose touch should turn all baser substances to gold, for the Elixir of Life which would impart eternal youth. It was only when these other sciences were joined to mathematics that they became definite and exact, and we had Astronomy as a practical guide to surveying and navigation; chemistry capable of making quick and accurate analysis so that the character of every ingot cast in a great steel mill is known before it, still hot, reaches the rollers; and Physics with all the Engineering Arts which we base upon it.

The science of Europe in the first few centuries of our era was with the Romans. Rome, however, had a wild night of it; the sort of a time that leaves a dull headache and a bad taste in one's mouth the next morning. Her revels came to an end when the city was captured by the Vandals in 476 A. D. and civilization dozed off into a sleep of about 1,000 years, and what little science there was, was prosecuted by the Arabs or kept by a few scattering monks, as the monasteries were generally respected by all factions in war.

Europe, however, had its awakening and curiously perhaps her first dreamy thoughts were of beauty, and the works of Raphael and Michael Angelo and the tales of Boccaccio were produced. It will be noted that Italy first felt the revival. There is a little inclination to make fun of Italy. One is reminded of a girl in a small Iowa town who led a pace rather too fast for some of her neighbors. A

town gossip said: "It's really a pity that Nell has turned out so badly." When Nell heard of it she said: "She needn't talk, I'm only eighteen and haven't turned out yet." She has now turned out an exemplary matron. Italy, however old, has been free and united only for about forty years and now stands very high in certain lines, particularly in hydro-electric developments and the electrification of trunk railways.

After the Literary and Artistic Renaissance came the Protestant Reformation in Northern Europe and the counter Catholic Reformation in Southern Europe, all followed by 100 years of religious war, ending with the Thirty years' War in



LEONARDO DA VINCI.

1848. At this time Galileo had been dead six years, Robert Boyle was beginning his work and Newton was six years old. You all know the times in which these men lived. Italy was only a number of small, more or less independent states, generally a war going on among some of them. In Germany conditions were little better. In England the Catholics and Protestants persecuted one another by turns, according to the alliance of the ruler. The State Church persecuted the Puritans, some of whom came to America and persecuted the Baptists and Quakers here, hanging a few witches on the side. Newton was born just when Charles the First had been beheaded. For a lurid picture of the state of things in France you may read Dumas' novels of this period, where he tells of the three Guardsmen in the service of Louis XIII as they murdered the equally gentle followers of Cardinal Richelieu. Such were the surroundings in which the exact sciences had their birth.

The discovery of America in 1492 had done away with the old ideas of the earth. Except for the Continent of Europe and a little strip around the Mediterranean Sea, there had been little but myth. Navigation had showed the earth to be round and apparently supported by nothing in particular. This set Copernicus, a German Monk born in 1473, to thinking, and he decided that the sun and not the earth was the center of the universe. He was a discreet man and his theory was not

published till 1540, so that he was safely dead before anyone got round to burn his books. Guido Bruno was burned in 1600 for holding the Copernican theory.

The work of Copernicus afforded the starting point for much of that of Galileo and its support finally brought him into disfavor and danger.

There are two men of Galileo's time who must be mentioned before telling of his life. These are Leonardo da Vinci, 1452-1519, and Girolama Cardan, 1501-1576.

Leonardo, of Florence, was one of the most remarkable characters of his age, famous as engineer, inventor, architect and sculptor, and best known as one of the greatest of painters. His most celebrated painting is "The Last Supper," an oil fresco on the wall of the refectory of the old cloister of Santa Maria della Grazie in Milan. He advocated experiment and observation as the only tests of truth long before Bacon. He understood the motion of the earth before Copernicus and the laws of the lever before Galileo. He invented the camera. He knew much of the art of perspective and of the workings of the eye. He wrote on fortification, hydraulics, falling bodies and the inclined plane. He studied combustion and animal respiration and even the elevation of continents. Still he is not one of those to whom we trace our present day sciences. There are two reasons for this. First, his art so overshadowed his scientific attainments that many of his writings are not yet published. Second, the times were not yet ready for the science, just as now, few outside narrow technical circles know that Langley had a flying machine, all but the light gas engine. He died just as people generally were becoming aware that flying was possible.

Cardan was a brilliant mathematician and physician. In those days specialists had not been developed. One may wonder why, with the work of such a man at hand, Galileo and Newton made no use of it. The answer is probably to be found in the fact that algebra was of little use in solving mechanical problems until Des Cartes coupled it with geometry in the science of analytic geometry. We will show later that pure science has not only a value for culture, but generally comes to its own in an ultimate application of its discoveries. Still it is true that most of the great scientists, even those not called engineers, were attracted most by problems having promise of a practical bearing.

Galileo was born at Pisa on February 15, 1564. His father had had scientific tastes but knew that the profession of mathematics was very unremunerative—the Professor of Mathematics in the University of Pisa received \$50 per year—so when young Galileo showed unusual ability in mathematics he was promptly discouraged and told he was expected to become a physician. His attainment in mathematics was so marked, however, that he attracted the attention of Ferdinand di Medici, Duke of Tuscany, who became his patron, and at the age of twenty-five he was enjoying the dreaded \$50 per year at Pisa. The only physical science of his time was from the works of Aristotle, then 2,000 years old. Aristotle and the other Greeks did not experiment, it required the use of the hands and was not polite. Aristotle had said that bodies fall with speeds proportioned to their masses. A mass of 100 pounds should fall 100 times as fast as one of one pound. No one tried it. Galileo in-

vited his colleagues to watch him do it and they gathered at the foot of the leaning tower of Pisa while he took two weights, one 100 times as heavy as the other, to the top of the leaning tower and let them fall. They struck together at the feet of the learned men. You have heard of the farmer at the zoo who studied the kangaroo and said: "It can't be, there ain't no such animal." The philosophers of Pisa were in a like case. They said the weights were bewitched and the

died at the age of seventy-eight. He lived before the days of engineering, but in applying the pendulum to measuring time, planning methods for determining longitude and giving this aid in certain waterway projects, he showed the trend of his mind to be distinctly practical, as those of most of the greatest experimenters have been.

Severe Storms in Chicago

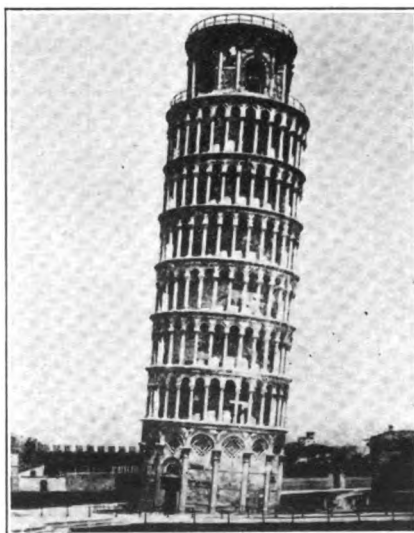
Sunday evening, July 13th, started a series of storms which swept over Chicago and surrounding territory and paralyzed telephone traffic for some time. The second storm of the series came Monday night and the third one the following Tuesday night. The maintenance force had not recovered from the first storm when the second one hit them, and so with the third. The storms were general, although certain districts were damaged more than others.

In the city, West Pullman and Wentworth districts were hit the hardest and Rogers Park District the lightest, although the districts all around Rogers Park were pretty badly crippled. The loop offices were not affected because they have very little exposed wiring. The toll department was hit the hardest in the districts to the north and west of Chicago, while to the south they escaped with comparatively little trouble.

Most of the trouble was due to the lightning, as on each of the three nights it was very heavy. The principal direct trouble was grounded carbons, although a good many fuses were blown and in some cases aerial cable was burned out.

Two high tension crosses were caused by the storm, one in the Belmont district and one in Lake View. The case in Belmont district was due to a guy wire breaking and coming in contact with a trolley wire. A twenty-five-pair cable was burned.

In Lake View district the lightning struck a high tension lead of the Commonwealth Edison Company and a cable of the Chicago Telephone Company, which were on the same pole. The high tension lead was then blown down upon the telephone cable, practically destroying it. A number of holes were burned in the sheath and many of the conductors were burned out.



LEANING TOWER OF PISA.
—Courtesy of Chicago Art Institute.

The wind also played its part. Two poles were blown down in West Pullman district and two in Wentworth. Several cross arms were blown off and a good many aerial wires were crossed up. Trees and branches were also blown over the lines. The toll department suffered the most damage from this source.

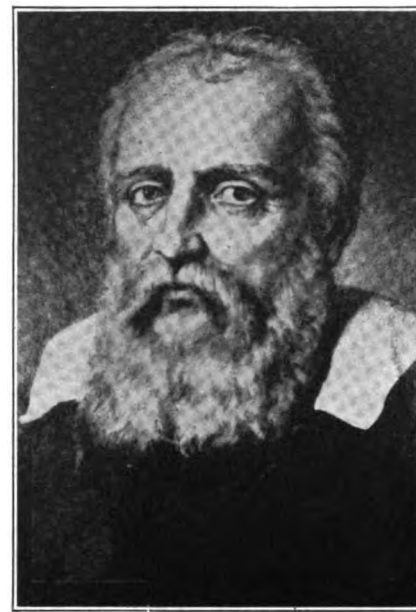
The greatest amount of trouble from the rain was in the cables. Wherever there was a crack in the armor the water found it and put the whole cable out of



COPERNICUS.

experiment did not amount to anything, anyway. The opposition aroused became so strong that, after three years at Pisa, Galileo went to Padua where there was greater freedom. Here he heard that a Dutch optician, Hans Lippershey, had put two lenses together so as to make distant objects appear nearer. He set about to do the same thing and at last succeeded in making a telescope magnifying thirty times. He discovered the moons of Jupiter, the rings of Saturn, the mountains of the moon, spots on the sun and the fact that Venus had phases like the moon. Think of it, he had attempted to destroy the beauty of both sun and moon, two of the most perfect creations! There were several reasons why Jupiter had no moons. Sizzi argued that there were seven heavenly bodies. Seven was a sacred number and more bodies than this could not exist. At any rate, these moons of Jupiter were invisible, hence they could not affect the earth, hence were useless, hence did not exist. One of the ardent disbelievers in these moons died about this time and Galileo remarked that he hoped the good man saw the moons on his way to heaven. Galileo invited the Professor of Philosophy at Padua to see them for himself, but he would take no chances with an instrument so misleading as the telescope and refused to look.

Galileo laid the foundation for the science of mechanics and also of hydrostatics as we have them. His insight into mechanics was remarkable, as he had to begin with practically nothing. He had created such hostility by his opposition to the accepted ideas of science that he was forced, doubtless on threat of torture, to sign a recantation and spend the remainder of his life practically a prisoner. He



GALILEO.

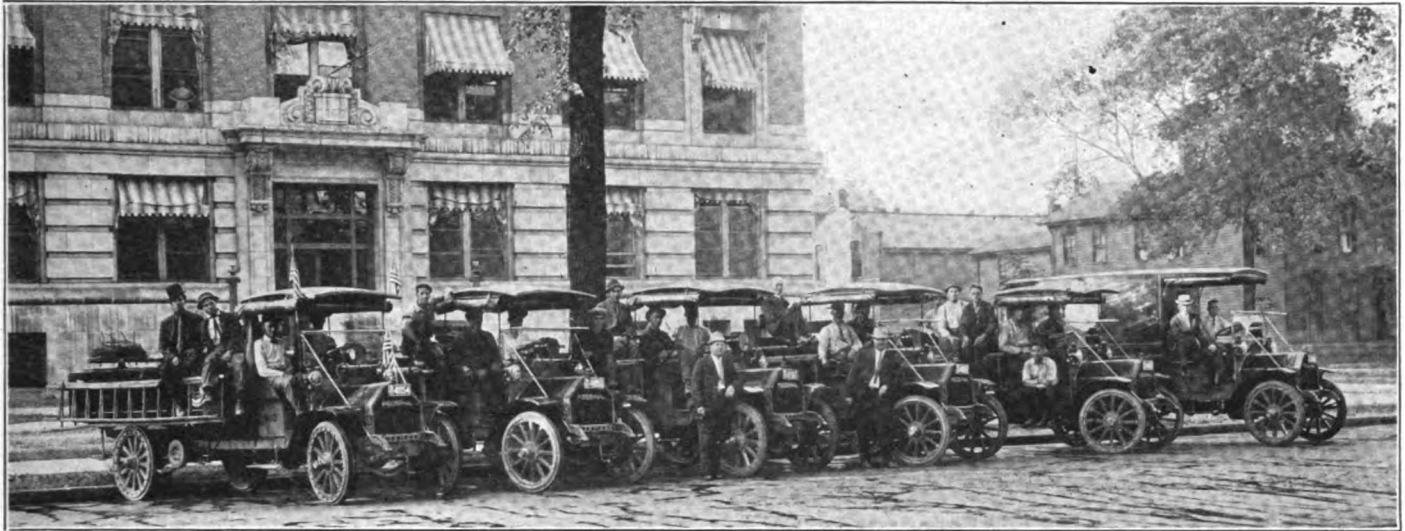
service. Four subscribers' cables and ten inter-office cables were thus affected. These bad subscribers' cables put about 700 subscribers out of service and the inter-office cables, while not affecting many subscribers directly, made necessary a great deal of work.

The inter-office cables were all 100 pairs and in two cases there were three cables in the same sheath. After the trouble was located these cables had to be boiled out and in one case a sixty-foot section had to be spliced in. In these ten cables there were about 700 inter-office trunks and calling circuits and about seventy-five subscriber lines. About fifty of the calling circuits had to be re-routed through other cables to give temporary service.

The normal number of cases of "trouble" reported for one day in Chicago is about 5,000. For July 14th, 15th and 16th this amount was increased 100 per cent., making about 15,000 extra cases of trouble due to the storm, so that for these three days there were about 30,000 cases of trouble reported.

Ordinarily 218 repairmen handle this trouble for the city, but due to the storm 181 extra repairmen were called in to help, practically doubling the outside force. The inside force also had to be increased to help out the testmen.

Taking these three storms as one, it was the worst storm that the Chicago Telephone Company has ever experienced in point of service affected. The next largest storm that the records show was in September, 1911, which showed about 11,500 cases of trouble reported. The toll department people also say that it was by far the largest storm that they have ever experienced.



SIX NEW MOTOR TRUCKS FOR DETROIT.

The Michigan State Telephone Company recently purchased six automobile trucks of the Federal Motor Truck Company in Detroit. These trucks, lined up in front of the Cadillac office, were photographed in the afternoon of July 3. This date explains the flags on the first truck.

Reading from left to right the names are as follows: Truck No. 1—M. Stitt, R. McKinney, W. Bova, foreman; J. Pazik, driver. Truck No. 2—J. Stewart, T. Raviler, foreman; E. Meyers, driver; C. Orth. Truck No. 3—V. Causley, J. Reese, foreman; D. Gamble, driver; G. Solomonson, line supervisor. Truck No. 4—C. L. Boyce, plant superintendent; W. Dunton, foreman; E. Nersus, driver; M. Ewald, Detroit plant chief. Truck No. 5—R. Osgood, L. Lerner, M. Muffley, F. Davis, W. Bergstrom, T. Hoover, driver. Truck No. 6—J. W. Blisbee, installation foreman; W. Bary, driver. Mr. Ewald states with the deepest conviction that his voice is capable of expressing, that "all these guys are live wires."

Batting Averages of Chicago Telephone Team in Commercial League

JULY 19, 1913.						
	AB.	H.	TB.	BB.	HP.	Pct.
Dillon	1	1	0	0	0	1.000
F. Driscoll	14	2	10	3	1	.500
Parks	4	2	2	0	0	.500
Hicks	4	2	2	0	0	.500
Shannon	26	11	16	5	1	.423
Wendorf	23	10	20	2	0	.400
Schuler	15	6	11	4	0	.400
Thiel	5	2	2	1	0	.400
Hogan	35	13	19	2	0	.371
Delaney	27	10	11	0	0	.370
A. Bates	11	4	4	0	0	.364
Brunke	12	4	5	3	1	.333
Savage	12	4	5	2	0	.333
F. Bates	9	3	7	2	0	.333
H. Driscoll	13	4	5	0	0	.308
Hooker	7	2	3	1	0	.286
Tobin	7	2	2	1	0	.285
Nlesen	7	2	2	2	1	.286
Kinsley	20	5	9	7	1	.250
McConnell	16	4	7	1	1	.250
McInerney	11	2	2	2	0	.181
Christofeek	6	1	2	0	0	.167
Marggraf	15	2	2	3	0	.133
Tierny	4	0	0	0	0	.000
Kelly	4	0	0	0	0	.000
Team	309	103	149	41	6	.333

Plant Department League, Chicago

STANDING OF THE TEAMS.

JULY 19, 1913.

	W.	L.	Pct.
Lincoln	4	2	.667
Wentworth	4	2	.667
Oakland	4	2	.667
So. Install.	4	3	.571
Nights	4	3	.571
Maintenance	3	3	.500
Calumet	2	5	.285
Harrison	1	6	.143

GAMES OF JUNE 28, 1913.

South Installation, 15; Harrison, 14.
Calumet, 13; Wentworth, 12.
Oakland, 0; Maintenance, 0.
Night, 5; Lincoln, 3.

GAMES OF JULY 12, 1913.

Calumet, 12; Harrison, 8.
Wentworth, 14; Maintenance, 9.
Night, 10; S. Installations, 4.
Oakland, 13; Lincoln, 5.

GAMES OF JULY 19, 1913.

Maintenance, 3; Harrison, 2.
Lincoln, 9; S. Installations, 7.
Oakland, 19; Calumet, 7.
Wentworth, 11; Nights, 0.

Inter-Department League, Chicago

STANDING OF THE TEAMS.

JULY 19, 1913.

	Won.	Lost.	Pct.
Central Installation	7	0	1.000
Equipment	5	2	.714
Traffic	4	3	.571
North Installation	3	3	.500
Collection	3	3	.500
Evanston	2	4	.333
Auditing	1	5	.167
Engineering	1	6	.143

GAMES OF JULY 12, 1913.

Evanston Plant, 10; Collection, 2.
Central Installation, 23; Traffic, 4.
Engineering, 21; No. Installation, 17.
Equipment, 9; Auditing, 0.

GAMES OF JULY 19, 1913.

Central Installation, 11; Equipment, 3.
Collection, 12; Traffic, 6.
No. Installation, 26; Auditing, 4.
Evanston Plant, 8; Engineering, 3.

Say "Goodbye"

One of the few things which grate upon one's nerves and that has not been entirely eliminated in the rapid development of the telephone is the practice of not saying "goodbye" or some other suitable closing remark when finishing a telephone conversation. Many of us have experienced the "click" in the ear caused by the party on the other end of the line slamming the receiver on the hook before we were through talking. It leaves a doubt in our mind whether the conversation is finished. If the remarks are concluded with a polite "goodbye" or something similar no room for doubt is left. None of us are so busy but that we can sacrifice "lost motion" for politeness, especially when only a word or two is involved. From every angle "the voice with the smile wins," for it inculcates in our minds the real idea of telephony. But the voice that neglects to say a parting word of courtesy leaves a bad impression, which retards to a large extent the still wonderful rise of an invention whose progress must necessarily be built around politeness.—*Telephone Review*.

Central Battery Telephone in Spain

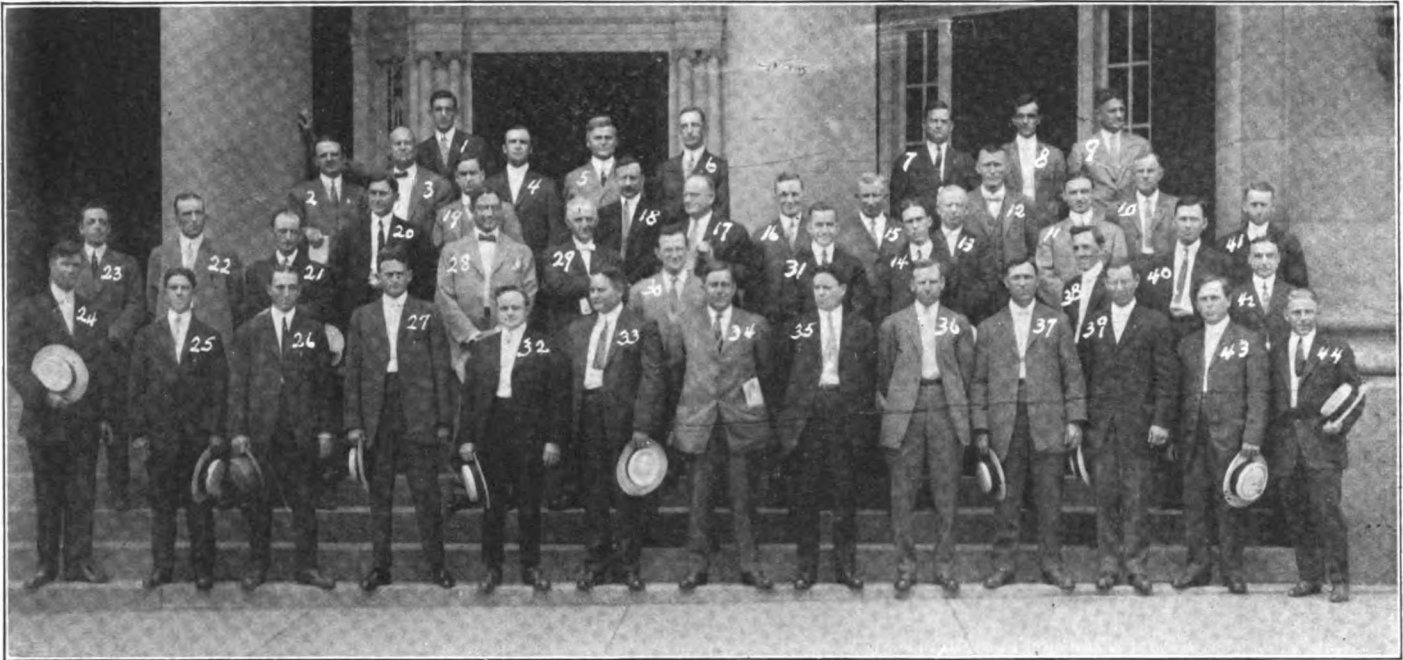
The need for the very best kind of telephone service is making itself felt in Spain as it is in other countries. The second central or common battery switchboard is shortly to be installed in the northern part of the Iberian peninsula at Pamplona.

The first central battery installation in Spain was made about four years ago in the seacoast city of San Sebastian, separated from Pamplona by the Cantabrian mountain range. This equipment was manufactured and installed by the Bell Telephone Manufacturing Company of Antwerp—the Belgian concessionaire of the Western Electric Company of the United States. It consists of an eleven-section multiple switchboard of the relay central battery type, with a capacity for 2,000 lines. The initial equipment was for 650 lines and required eighteen operators.

The equipment to be installed at Pamplona is also to be furnished by the Bell Telephone Manufacturing Company of Antwerp and consists of a number of sections of what is known as the No. 10 central battery switchboard. This is a lamp signal relay board employing a cut-off jack in place of the cut-off relay used in the No. 1 type.

Volts for Women

There may be some among our readers to whom the newspaper item about Policeman Ohm being put in a cell means very little. As for ourselves we merely inquired "watt for," and whether he made much resistance. If so, he probably got hot about it. His attorney wanted him discharged, so he could light out. He lost his star connection. Somebody blew on him. Poor man.—*Edison Round Table*.



COMMERCIAL AND PLANT MEETING, PEORIA, ILL.

(1) E. R. Cogswell, district commercial manager, Springfield; (2) R. E. Jackson, commercial manager, Canton; (3) Fred Beckman, plant chief, Bloomington; (4) G. C. Treadway, district commercial manager, Peoria; (5) C. H. Rottger, commercial superintendent, Springfield; (6) J. E. Baird, assistant general foreman, Peoria; (7) R. Wilder, district commercial manager, Alton; (8) R. D. Wallace, district plant chief, Centralia; (9) Vess Gable, district plant chief, Decatur; (10) J. L. Thomas, commercial manager, Bloomington; (11) O. F. Clark, district commercial manager, Champaign; (12) Ed. Flowers, district plant chief, Quincy; (13) A. J. Beverlin, district commercial manager, Rock Island; (14) S. P. Langhoff, district chief clerk, Peoria; (15) T. E. Keltner, district plant chief, Peoria; (16) T. M. Bradford, division traffic supervisor, Chicago; (17) J. E. Halligan, district commercial manager, Quincy; (18) H. B. Lewis, plant superintendent, Chicago; (19) William Edgar, district accountant, Springfield; (20) Ed. Hart, district plant chief, Champaign; (21) J. F. Rossman, plant chief, Canton; (22) W. M. Huston, district plant chief, La Salle; (23) G. H. Brannon, chief collector, Peoria; (24) R. L. Wright, district commercial manager, Paris; (25) W. L. Parrish, district plant chief, Paris; (26) Charles Blum, district plant chief, Springfield; (27) J. C. Miller, district plant chief, Jacksonville; (28) F. A. de Peyster, traffic superintendent, Chicago; (29) F. W. Atkins, district commercial manager, La Salle; (30) J. H. Barlow, district traffic chief, Rock Island; (31) N. R. Harrison, district traffic chief, Springfield; (32) E. J. Howells, district commercial manager, Jacksonville; (33) F. W. Kelly, district commercial manager, Galesburg; (34) James Conaty, district plant chief, Galesburg; (35) E. F. Morrill, division plant supervisor, Chicago; (36) E. L. Mitchell, district plant chief, Rock Island; (37) A. N. Huckins, district plant chief, Rockford; (38) J. A. Whalen, district plant clerk, Peoria; (39) F. E. Eby, district commercial manager, Rockford; (40) A. J. Parsons, chief commercial agent, Springfield; (41) B. Duffy, city line foreman, Peoria; (42) J. B. McMillan, district commercial manager, Decatur; (43) A. B. Singer, district plant chief, Alton; (44) H. H. Routson, supervisor of routine, Chicago.

Conferences at Peoria

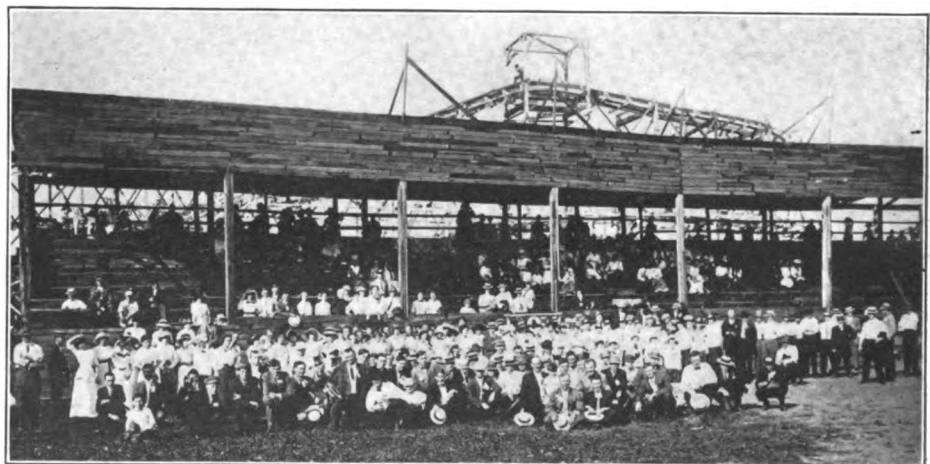
On July 1st the accounts of all exchanges in the Peoria, Ill., district, comprising Peoria, Pekin, Bloomington, Canton, Chenoa, Delavan, Forrest and Lewistown were centralized, and these offices will forward their accounting records to the Springfield accounting center. A joint commercial and plant meeting was held in Peoria on June 19th and 20th for the purpose of discussing methods to be employed. The first day's meeting was devoted to the analysis of centralized accounting, General Bulletin No. 16. The meeting was called to order by C. H. Rottger, commercial superintendent. He turned the meeting over to W. W. Hiller of the Vice President's staff, who together with E. G. Drew, division auditor of receipts of the Chicago Telephone Company, and W. M. Edgar, district accountant, explained the points necessary to be followed in connection with centralized accounting. All district commercial managers and district plant chiefs in the state, together with Chief Commercial Agent A. J. Parsons, Traffic Superintendent F. A. dePeyster and Plant Superintendent H. B. Lewis attended the meeting of June 20th. Those present discussed improved methods of handling the routine work of both the commercial and plant departments as affected by centralized accounting. A meeting on June 21st was held for plant men.

Moving a Hanging Pole

The small boy's trick of shooting insulators always has been decried by the harrassed trouble shooter, but the fact that this practice is highly destructive to the lines recently furnished the solution of a ticklish repair problem.

Linemen working near Whitney Point, N. Y., according to *Popular Mechanics*,

found a pole which was rotted almost in two near the base. It was kept hanging by the four wires which it carried. As the men did not dare to climb the pole, some one suggested breaking the insulators with a gun. A rifle was procured and a few well directed shots destroyed the insulators and allowed the pole to fall to the ground.



PICNIC OF BELL EMPLOYEES OF ROCK ISLAND AND MOLINE, ILL., AND DAVENPORT, IA.

District and Division Collection Rating

JUNE 1, 1913.

	Total to be collected during May.	May collections.	Unpaid June 1.	Pct. collected.	Pct. uncollectable to current charges.	Stations.
1. Wisconsin Co., Appleton Dist.....	\$ 60,475	\$ 59,033	\$ 1,442	97.6	.2	26,637
2. C. U. Co. (Indiana), Southern Dist.....	38,231	35,296	2,935	92.3	.6	19,087
3. Wisconsin Co., Madison Dist.....	37,234	34,261	2,973	92.2	.6	15,798
4. C. U. Co., Champaign Dist.....	5,522	5,070	452	91.8	.2	2,316
5. Wisconsin Co., Janesville Dist.....	8,980	8,177	803	91.1	.2	4,330
6. C. U. Co., Columbus Dist.....	53,676	48,412	5,264	90.2	.03	21,206
7. C. U. Co., Centralia Dist.....	11,952	10,631	1,321	88.9	.2	5,046
8. C. U. Co., Toledo Dist.....	63,334	56,135	7,199	88.6	.1	25,707
9. Chicago Co., Chicago Heights Dist.....	7,245	6,401	844	88.3	.16	2,496
10. C. U. Co., Quincy Dist.....	7,757	6,739	1,018	86.9	.2	3,166
11. C. U. Co., La Salle Dist.....	6,049	5,232	817	86.5	.1	2,500
12. C. U. Co., Akron Dist.....	64,403	54,727	9,676	85.0	.4	23,224
13. Wisconsin Co., Milwaukee Dist.....	160,534	136,373	24,161	84.9	.3	60,101
14. C. U. Co., Peoria Dist.....	44,522	37,554	6,968	84.3	.3	15,625
15. C. U. Co., Galesburg Dist.....	6,465	5,437	1,028	84.1	1.1	3,355
16. Wisconsin Co., Eau Claire Dist.....	35,452	29,753	5,699	83.9	.4	13,180
17. Chicago Co., Chicago City Dist.....	1,359,086	1,139,848	219,238	83.8	.05	328,647
18. Michigan Co., Detroit Dist.....	297,540	245,820	51,720	82.6	.4	80,106
19. Chicago Co., Blue Island Dist.....	9,763	8,068	1,695	82.6	.37	3,294
20. C. U. Co., Rock Island Dist.....	25,092	20,686	4,406	82.4	.2	9,862
21. C. U. Co. (Indiana), Northern Dist.....	64,490	52,634	11,856	81.6	.6	26,789
22. C. U. Co., Chillicothe Dist.....	42,193	34,041	8,152	80.7	.3	18,947
23. C. U. Co., Alton Dist.....	6,096	4,897	1,199	80.3	.3	3,109
24. Chicago Co., Woodstock Dist.....	9,675	7,649	2,026	79.1	.05	3,426
25. Chicago Co., Elgin Dist.....	16,122	12,479	3,644	77.3	.28	6,011
26. Chicago Co., Oak Park Dist.....	34,593	26,726	7,867	77.2	.10	9,552
27. Chicago Co., La Grange Dist.....	15,764	12,182	3,582	77.0	.36	4,986
28. C. U. Co., Kankakee Dist.....	12,195	9,363	2,832	76.8	.1	5,721
29. C. U. Co., Jacksonville Dist.....	6,911	5,300	1,611	76.7	.3	4,256
30. C. U. Co. (Indiana), Central Dist.....	96,277	73,740	22,537	76.6	.6	30,140
31. Chicago Co., Gary Dist.....	9,523	7,587	1,936	76.5	.67	2,146
32. C. U. Co., Paris Dist.....	2,324	1,766	558	76.0	.5	1,625
33. Chicago Co., Hammond Dist.....	19,853	15,014	4,839	75.6	.36	5,612
34. Chicago Co., Aurora Dist.....	17,641	13,154	4,487	74.6	.10	6,412
35. Chicago Co., Waukegan Dist.....	24,655	18,384	6,271	74.5	.29	7,601
36. Chicago Co., Wheaton Dist.....	11,057	8,167	2,890	73.8	.15	3,756
37. Chicago Co., Evanston Dist.....	40,803	30,040	10,763	73.6	.19	9,622
38. C. U. Co., Springfield Dist.....	29,667	21,328	8,339	71.9	.1	10,002
39. C. U. Co., Rockford Dist.....	18,237	12,878	5,359	70.6	.01	7,489
40. Chicago Co., Joliet Dist.....	27,829	19,438	8,391	70.0	.20	9,597
41. C. U. Co., Dayton Dist.....	92,659	64,563	28,096	69.7	.1	22,837
42. Cleveland Co., Cleveland Dist.....	185,048	122,411	62,637	66.2	1.97	54,896
43. C. U. Co., Decatur Dist.....	16,512	10,034	6,478	60.8	1.1	5,486
44. Michigan Co., Eastern Dist.....	94,884	55,311	39,573	58.2	.2	31,242
45. Michigan Co., Grand Rapids Dist.....	133,383	77,311	56,072	57.7	.32	42,537
46. Michigan Co., Marquette Dist.....	54,135	30,995	23,140	57.2	.5	15,114
47. Michigan Co., Saginaw Dist.....	73,115	41,084	32,031	56.1	2.9	21,317
Total	\$3,459,454	\$2,742,129	\$717,325	79.3	....	1,035,911
DIVISION SUMMARY.						
Wisconsin Co.	\$ 302,675	\$ 267,597	\$ 35,078	88.4	.25	120,046
Chicago Co., City.....	1,359,086	1,139,848	219,238	83.8	.05	328,647
C. U. Co. (Ohio).....	316,265	257,878	58,387	81.5	.03	111,921
C. U. Co. (Indiana).....	198,998	161,670	37,328	81.2	1.3	76,016
C. U. Co. (Illinois).....	199,301	156,915	42,386	78.7	.2	79,558
Chicago Co. (Sub.).....	244,524	185,289	59,235	75.7	.23	74,511
Michigan Co.	653,557	450,521	203,036	68.9	.7	190,316
Cleveland Co.	185,048	122,411	62,637	66.2	1.97	54,896
Total	\$3,459,454	\$2,742,129	\$717,325	79.3	....	1,035,911

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent. of the total charges for collection during May, 1913, are given below:

City and State.	Per cent collected.	Stations.
Columbus, Wis.....	100	828
Danville, Ohio.....	100	240
Chenoa, Ill.....	100	209
Marshall, Ohio.....	100	171
Rainsboro, Ohio.....	100	139
Princeton, Wis.....	100	125
Red Granite, Wis.....	100	113
Belfast, Ohio.....	100	98
Green Lake, Wis.....	100	87
Brooklyn, Ind.....	100	79
Burnett Jct., Wis.....	100	76
Linden, Ind.....	100	73
Richmond, Ind.....	100	63
Bourneville, Ohio.....	100	51
Milan, Ill.....	100	21
Corsica, Ohio.....	100	20
Dyer, Ind.....	100	18
Okawville, Ill.....	100	18
Goshen, Ind.....	100	17
Mt. Orab, Ohio.....	100	12
Elkhart, Ind.....	100	11
Elburn, Ill.....	100	6
Plainfield, Ind.....	100	5
Horicon, Wis.....	99.7	338
Peshigo, Wis.....	99.6	125
Manitowoc, Wis.....	99.5	1,448
Marquette, Wis.....	99.2	1,408
Vincennes, Ind.....	99.1	2,542
Neenah-Menasha, Wis.....	99	1,477
Beaver Dam, Wis.....	99	1,404
Hartford, Wis.....	99	631
Omro, Wis.....	99	546
Boggsstown, Ind.....	98.9	86
Baraboo, Wis.....	98.8	769

Algoma, Wis.....	98.8	255
Hurley, Wis.....	98.8	248
Crawfordsville, Ind.....	98.7	2,940
Fond du Lac, Wis.....	98.6	3,448
Mayville, Wis.....	98.6	449
Berlin, Wis.....	98.6	407
Jefferson, Wis.....	98.6	391
Burlington, Wis.....	98.5	726
Spencer, Ind.....	98.5	255
Watertown, Wis.....	98.2	911
Oconto, Wis.....	98.1	473
Keweenaw, Ill.....	98.1	399
Winneconne, Wis.....	98.1	137
Galva, Ill.....	98.1	9
Ft. Atkinson, Wis.....	98	778
Sturgeon Bay, Wis.....	98	746
Hillsboro, Ohio.....	98	614
Juneau, Wis.....	98	173
Ashville, Ohio.....	98	22
Oshkosh, Wis.....	97.9	4,263
Gladwin, Mich.....	97.9	121
Mt. Gilead, Ohio.....	97.9	23
Whitewater, Wis.....	97.8	813
Waupaca, Wis.....	97.8	479
Pt. Washington, Wis.....	97.8	381
Vandalla, Ohio.....	97.8	170
North Freedom, Wis.....	97.7	150
Stoughton, Wis.....	97.6	1,021
Stevens Point, Wis.....	97.5	900
New London, Wis.....	97.4	499
Winchester, Ohio.....	97.4	341
Shawano, Wis.....	97.3	426
Appleton, Wis.....	97.2	1,153
Urbana, Ohio.....	97.1	254
Shelbyville, Ind.....	97	1,940
French Lick, Ind.....	97	438
Lewisville, Ind.....	96.9	193
Kaukauna, Wis.....	96.9	431
Cedarburg, Wis.....	96.9	138
Lewistown, Ill.....	96.6	724
De Pere, Wis.....	96.5	1,053
Waukesha, Wis.....	96.4	1,817

Hortonville, Wis.....	96.4	327
Little Chute, Wis.....	96.2	51
Logansport, Ind.....	96.1	64
Logan, Ohio.....	96	195
Hudson, Wis.....	95.9	558
Alexandria, Ind.....	95.9	389
Edwardsville, Ill.....	95.8	1,152
Green Bay, Wis.....	95.7	3,790
Wrightstown, Wis.....	95.7	100
Auburn, Ind.....	95.6	1,081
West Bend, Wis.....	95.6	428
Oconto Falls, Wis.....	95.6	102
Lancaster, Ohio.....	95.3	2,491
New Castle, Ind.....	95.3	1,493
Gallon, Ohio.....	95	798
Lancaster, Wis.....	95	260
Fairland, Ind.....	95	54

Traffic Conference

For some time past the Standardization Committee of the A. T. & T. engineering department has been studying local operating methods. The results of their study have been set forth fully in a recent traffic circular known as T. C. No. 55. Copies of this circular letter were sent to the traffic superintendents of the five states comprising the central group. Before sending out the new instructions to the operating forces, it was thought desirable to have the traffic heads of the various units meet in Chicago for a final discussion of the proposed standard methods.

The conference was held in Chicago on the ninth floor of the Bell Telephone Building on Monday and Tuesday, July 14th and 15th. It was opened by Vice President Burt, who discussed the advantages of collective study of some of the broader questions pertaining to telephone work. Mr. Burt concluded his talk with a brief reference to Mr. Vall's theory of graded standards of service.

Mr. Larned returned from his summer home for two days in order to participate in the conference. Traffic Engineer Allen postponed his vacation a few days for the same reason.

Mr. de Peyster called in his district traffic chiefs in order that they might listen to the discussion of the methods before they were asked to apply the detailed instructions.

The conference was considered profitable by all who attended, a meeting of this sort really being much like the three-day course that a number of eastern mayors took recently at the University of Wisconsin.

The following men attended the conference:

GENERAL OFFICES: A. Burt, vice-president; R. W. Sullivan.
A. T. & T. COMPANY: Herman Thomas, division traffic superintendent; W. D. Farnham, local traffic engineer; E. B. Fairman.
ILLINOIS DIVISION: S. J. Larned, general traffic superintendent; A. S. R. Smith, traffic supervisor; L. W. Layton, traffic supervisor; S. S. Smith, traffic supervisor; W. R. McGovern, engineer.

CENTRAL UNION ILLINOIS DIVISION AND CHICAGO SUBURBAN DIVISION: F. A. de Peyster, traffic superintendent; T. M. Bradford, division traffic supervisor; W. E. Chandler, district traffic chief, Chicago suburban; H. B. Davenport, district traffic chief, Peoria; N. R. Harrison, district traffic chief, Springfield; J. H. Barlow, district traffic chief, Rock Island; C. G. Seytler, district traffic chief, Centralia.

CHICAGO CITY DIVISION: H. N. Foster, traffic superintendent; B. R. Cooper, division traffic chief; J. W. Bradshaw, traffic supervisor; G. K. McCorkle, district traffic chief.

INDIANA: J. L. Wayne, traffic superintendent; Guy Green, district traffic chief, Indianapolis.

CLEVELAND: Norman Anderson, traffic superintendent.

OHIO: F. W. Whitten, traffic superintendent.

MICHIGAN: W. A. Spencer, traffic superintendent.

WISCONSIN: F. H. Lincoln, traffic superintendent.

CENTRAL ENGINEERING DEPARTMENT: A. P. Allen, traffic engineer; C. R. Kalkow, C. K. Brydges, A. E. Van Hagen.

Obituary

JOHN D. McLEOD, formerly second vice president of the Wisconsin Telephone Company, died at Romeo, Mich., July 17th. He had been out of active service since 1907. He was seventy-one years old.

Mr. McLeod was with the Wisconsin



JOHN D. McLEOD.

Telephone Company for many years. Leaving the railroad service in 1886 he was appointed auditor of the Wisconsin Company, the position of secretary being later added to his duties. Under a reorganization in 1900 he was made general manager and assistant secretary. During the next five years, which was a period of rapid development in the telephone industry, he was the head of the operating department of the Wisconsin Company. In 1905 he was elected second vice president, a position he held until his retirement in 1907.

Mr. McLeod was a member of the Telephone Pioneers of America. He leaves a widow, one son and one daughter.

Well Developed County

That two-thirds of the farmers in Chippewa County, Mich., now have telephones in their homes is shown from the figures compiled by officials of the local telephone exchange at the close of 1912. Probably more telephones have been put in during the past year than ever before in that length of time, and the lines of the company have been extended in the last few months into places where telephones have never before been used.

Communication can now be had with nearly every township in the county, and, according to Manager Baker of Sault Ste. Marie, there are very few farmers within the five-mile radius who have not a telephone in their homes.

The telephone company's business in this county has shown a marked improvement in the last twelve months. The past year has probably been the most successful in the company's history. Mr. Baker said that the telephone men found

it hard to keep up with the demand for service. In the past month forty-eight telephones were installed in houses in this county, and that number has seldom been exceeded in a single month in Chippewa County.—Sault Ste. Marie News.

Wireless Telephones to Spirit Land

"We hope to be soon in wireless communication with the departed ones. We have already installed a wireless plant in our church and hope almost any day to receive a communication from someone who has left our shores."

This interesting statement was made recently by the Rev. Dr. Richard R. Schleusner, head of the New York Temple of Modern Spiritualism in West Twenty-seventh street.

"In order to advance the cause of spiritualism," he continued, "we have established a 'psychical laboratory' in our rooms and are daily making experiments under the direction of noted scientists. We will also install a wireless telephone for the purpose of ascertaining whether it is possible for departed ones to communicate with their loved ones."

Dr. Schleusner stated the temple had engaged the services of William Russell, formerly connected with the wireless bureau of the United States navy and in charge of the station. He explained that the station was merely for the receipt of messages. None would be sent, he said, because they might be picked up by other wireless operators.

Private Cars Equipped

Private or "business" cars on the Erie Railroad have been equipped with intercommunicating telephone systems. The president's car has six stations, connecting staterooms, observation room, stenographer's desk and kitchen.

Inside History

It having been discovered that the palace of the Caesars had elevators, we may now expect to learn that the contest between Caesar and Pompey was at bottom due to a disagreement over the warding of a telephone franchise.—New York Post.

Real Generosity

A farmer entered the office of a small exchange in Indiana to pay his bill. He was somewhat disgruntled, claiming that his telephone had been out of service from Friday night until Monday morning. The manager made a pencil calculation and told the subscriber he was entitled to an allowance of six cents on his quarterly bill.

The farmer handed three dollars through the window and the manager opened the cash drawer to get the six cents. As fractional transactions were not usual, the necessary one cent to make the right change was not forthcoming. The manager searched his pockets, also to no avail. Then he turned to his office clerk and tried to borrow the penny. At this point the farmer spoke up:

"Oh, never mind the cent. Just give me the nickel. I don't want to be small about this matter."

Quincy Cut-Over

The cut-over by which all telephone service in Quincy, Ill., will be transferred to one exchange is scheduled for August 1st.

The new ten-position Western Electric toll board has been installed and tested. The two-position wire chief's desk has been completed and was used by the cut-over force in making all tests.

The Quincy Home Telephone Company was acquired by the Central Union Telephone Company last year and preparations begun to consolidate the two exchanges. The Home company occupied a building which is unique among telephone properties. It stands on a slight eminence, surrounded by private residences, and is one of the show places of Quincy. This building will be occupied by the combined exchanges. J. E. Halligan, the veteran manager, continues as district commercial manager in charge of Quincy and vicinity. E. F. Morrill, equipment supervisor of the division offices, Chicago, has been in complete charge of the cut-over.



TELEPHONE BUILDING, QUINCY, ILL.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

"Just Walking Up and Down"

A student in one of our operator's schools, was observed one day, walking very sedately up and down behind the line of empty chairs in the school room. Some one asked her what she was doing. "Oh!" she said, "I am walking up and down practising to be a supervisor."

We imagine the supervisors who read this will smile at the idea this girl had of a supervisor's duties, and probably in a short time the student herself will smile as she perceives what besides "walking up and down" is involved in her supervisor's work.

It is only another illustration of the truth, that one has to see beyond the visible, to get at the reality. She *does* walk up and down, but only to be ready to give the assistance the operator needs. If she walked up and down with the regularity of a sentinel, as our student was doing, with eyes straight before her, she would indeed be easy to imitate, but about as useful as a caged lion.

The position of supervisor has nothing of the mechanical about it. To be a successful supervisor, one has to be intensely human. To a certain extent the operator must be mechanical. She has to confine herself to the brief phrases, the set formula for answering subscribers, and if she is a good operator, she takes pride in deftly making connections and quickly completing her calls. When she comes to a point where more must be done for

the subscriber, this ready helper—the supervisor—who has been walking up and down, waiting to serve, completes the work the operator cannot do. She is really a co-operator, one who works with the operator, and if the co-operation between the operator and supervisor is perfect, each will feel a satisfaction in the team work they do. The name supervisor will never mean to them what the word itself might imply, for supervisor, literally, means overseer. The supervisor does much more than see what the operator does. She is *doing* something which will make the operator's work more perfect. Moreover, in a sense, she is a protector; a shield for the operator. Should a subscriber be unmannerly and attempt to insult an operator, the supervisor is there to take the call and settle the difficulty, or as is more often the case, she can supply the information to a subscriber which the operator has not time, or perhaps the necessary knowledge to give.

She is the co-operator in another way which perhaps is not fully understood and appreciated by the girls at the board. In talking with subscribers, the super-

visor has the opportunity to make the subscriber feel kindly toward the company and the service. She is spokesman for the telephone company, and if her voice and manner are pleasing and her patience and courtesy unflinching, she is sure to make friends for the company and she will produce a spirit in the subscriber which will help the operator also.

If the supervisor is alert, and interested in her work, she has a chance to note the weak points in her operators, and she can show them how to be more efficient—that is, to do their work with more ease. She will not criticize in a way to discourage, but will recognize every effort to do good work, and praise it, and she will call attention to faults in such a way that the operator will be glad to correct them so that her work may be more successful.

The supervisor, then, instead of just "walking up and down" has a most im-

portant place, both in representing the company to the public and in creating a spirit of loyalty and enthusiasm in her operators. Under her care, come the students who, having left the school, make their first plunge into the actual business world. To them she may be the kindly advisor, the ready friend. At once they may recognize the co-operator, the one who will work with them when they need help so much.

She may fill the position so well, that every girl in her division will see in her an ideal which they will try to imitate. The supervisor's position will be one which they will look forward to attaining, and it will not be just a "walking up and down" position.

for each offense up to three, and after that three days in the county jail. During the crusade against this *unconcealed weapon*, the young ladies of the Wisconsin Telephone Company have been co-operating loyally, under the able leadership of Miss Rosche, pledging themselves not to use hatpins so long as to endanger others. We are glad that they did not have to wait until an ordinance was passed before they considered the safety and comfort of people near them.

It may be thoughtlessness (we hope it is nothing worse) which makes us often ashamed of the women we meet on the elevators and crowded street cars. They must see that the innocent bystander often has to duck under the threatening spear of a hatpin which extends beyond the hat brim, but we seldom see the woman with this dangerous implement moving her head to the right or left to relieve the situation.

Sometimes she only annoys her neighbors with feathers which aim at their eyes or tickle their noses. Sometimes she leans back unconcernedly in the car seat, though she ought to remember that her big hat half fills the seat space behind her and that the poor man at her back is sitting on the edge of the seat getting round-shouldered to escape being scratched or stabbed by feathers or pins.

It is a reflection on all women who should surely possess that lovely feminine grace, consideration, that a law has to be made to oblige la-

dies (?) to regard the comfort of others. All honor to the girls who are not so absorbed in their own looks that they present the unlovely spectacle of selfishness in public places.

Feather Summons Deaf Subscriber

A directory advertising salesman tells of the canniness of a customer whom he recently interviewed.

The subscriber explained that his hearing was defective; he managed to make out fairly well in a telephone conversation, but all other ordinary sounds escaped him. Consequently, he used to have considerable trouble in knowing when the operators were calling him. As a last resort he obtained a long, red feather and attached it neatly and firmly to the clapper between the bells of his instrument. When the operator rings, the feather wags furiously, and no matter in what part of the room he happens to be, his attention is attracted. "Edison's got nothing on me," was the way he concluded his explanation.—*The Transmitter*.



A GROUP OF WEST OFFICE OPERATORS, MILWAUKEE.

Consideration

Mayor G. A. Bading has signed the famous "hatpin" ordinance, and no more will Milwaukee women be allowed to wear pins which protrude more than one-half of an inch from the crown of the hat. If the point is covered with an "effective" guard the pins may exceed this limit, but unless so guarded the wearers will be subject to fines of \$1

Character

By Ida Trowbridge, Toll Supervisor,
Muncie, Ind.

Character is the stamp impressed by nature, education or habit; character is within yourself, and is injured by temptation and wrong doing, but character endures throughout defamation in every form, and only perishes when you voluntarily transgress, and yet sometimes unfounded accusation or aspersion will besmirch your character.

Reputation is separate from character, for reputation is what you are supposed to be. Reputation is injured by slander and libels. Character is strength of mind, moral quality, the principles and motives that control our lives, quality or conduct with respect to a certain office or duty.

Some are born with a strong character

of the Cleveland Telephone Company Bible Class have not found this to be the case.

The fact that in telephone work there must be Sunday service suggested the idea to H. W. Marsh in 1904, that some of the operators might be glad to have an opportunity for Bible study. In October of that year, through the efforts of Mrs. Nettie Lett, matron of the Main Office, the first meeting was held, and twenty-five members were enrolled. The membership is now fifty, and the average attendance thirty-five.

One meeting a week has been held, with the exception of the summer months. The last meeting previous to dropping the studies for these months is held in some one of the city parks in the form of a basket picnic.

The class has been conducted from its beginning by Sarah L. Andrews, who

Exchange of Exchanges

Main, Chicago:

Information heard a little voice calling, "Give me Storkland."

She said, "What is it, please?"

The little voice repeated, "Storkland, can't you get me Storkland?"

Then a lady's voice was heard saying, "My little boy wants a baby sister, will you please see that he gets it?" and she disconnected.

Operator—Official 300.

A voice—I want Mr. Rice.

Operator—Who are you calling, please?

Voice—Mr. Rice—the stuff you eat with chop suey.

Engineering Department, Chicago:

A minister who had just had a Bell



BIBLE CLASS LUNCHEON AT MAIN EXCHANGE, CLEVELAND.

that not anything can down. Some educate themselves through need, pride or ambition, some by force of habit.

Employers are always looking for the person with a character that stands out in every line of the face, every movement of the body or every word that falls from the lip. See persons with character and you will find them leaders, advanced above their fellowmen.

Let us strive for this character that will uplift us in our daily walks of life and in our places of business. A character that will upbuild our own nature so that our own reputation will be such that the dropping of a single word or an impression in some manner from us that would seek to harm another would be impossible. Then indeed will we be endowed with a character that will stand and be everlasting. It will make us better citizens and enable us to cope with our duties in this world, in our homes, and at our daily occupation.

Telephone Bible Class

The majority of people would probably come to the conclusion that a meeting of a Bible class would be a very sober and sedate affair, but the members

practically all her life has been a very earnest student of the Bible, and the employees of the Cleveland Telephone Company who are members of the class consider themselves extremely fortunate in having so able a teacher. She was a teacher in the public schools of Cleveland for fifteen years, and has conducted a private college preparatory school for thirty-nine years. Miss Andrews has conducted Bible studies for over sixty years, and she is recognized as one of the most capable Bible teachers in Ohio.

All women employees of the Cleveland Telephone Company are eligible to membership, and that a good many are already accepting the opportunity of being instructed by such a competent teacher is shown by the accompanying picture. With the exception of two visitors, all those shown in the group are members, and eleven of them have been present at every meeting since the class was organized.

Grateful

A rural subscriber near Huntingdon, Pa., was so well pleased with his service that he called at the office to thank Mr. Bell personally.

telephone installed in the parsonage startled the congregation the following Sunday morning by announcing, "We will open the service this morning by singing hymn number Seven-O-Thr-r-r-ee."—V. A. J.

Milwaukee, Wis.:

A subscriber called at the cashier's office with a bill of seventy-five cents. He asked the assistant cashier for the details and upon being advised that the bill covered a second entry the subscriber stated that he lived in a small cottage and there was not room enough for a second entry.

North, Chicago:

An operator who has the same name as one of the supervisors was very ill in a hospital. A supervisor on her relief wanted to hear how she was and asked one of the operators the question, "Is Miss _____ in the hospital?" "Oh, no," said the operator, who was thinking of the supervisor, "she is on the floor."

Subscriber—Give me the Confession department. I want to move my phone.

Operator—I will give you Official 100.

Subscriber—Oh, yes, that's the guy.

Service Inspection Department, Chicago:

Subscriber—Can you give me the telephone number of Grace Church?

Information Operator: Where is it located, please?

Subscriber—She lives at S. Peoria street.

Information Operator—We have no record of a Grace Church at S. Peoria street.

Subscriber—But I am sure she has a telephone.

(Referred to Supervisor)—Do you know the name of the pastor? Probably the telephone is listed under his name.

Subscriber—This is not a house of worship. The lady lives in a flat.

Supervisor—Just a moment, please. Then after a short pause—Englewood. Please signal your operator and ask her for the number.

Lake View, Chicago:

The chief operator flashed back on a desk line and asked the operator answering for the supervisor to complete a connection. The subscriber then disconnected. On being called back, the subscriber advised that she had hung up so as to make room on the line for the supervisor.

A student, not yet acquainted with our method of reaching a supervisor, was found with hand upraised, waiting for a reply.

A subscriber, on being questioned concerning a cut-off, advised that a small child had "pulled the trigger on the side of the telephone," putting an end to her conversation.

Picnic of Harrison Night Force

Reported by Margaret Mulligan

Some time ago, at a meeting of the Chicago night operators, Mrs. Dewhurst asked, "Why do we not hear from the night forces?" It has taken some time for that sentence to become instilled into our minds, but at last one of the night forces in the city wishes your attention.

Thursday, June 26th, was a most beautiful day, and girls of the Harrison night force, with their chief operator, Miss

excellent ball player himself, was forced to admit that the girls proved a match for him. In the midst of the game, but you must not say it out loud, Mr. Watkins, assistant night manager of the City, was caught by a policeman and kept in close conversation for some time. All had a mental picture of that Honorable Sir in handcuffs, spending the remainder of the day in a police station; but the officer was simply trying to convince him that the girls were on the tennis grounds instead of the baseball grounds.



HARRISON NIGHT OPERATORS PICNIC AT LINCOLN PARK.

Parle, made it one of lasting memory. For that day, at least, work and duty were completely in the background, while frolic and fun came first, a rather unusual thing, but kindly remember we are speaking of the night force.

At last they were persuaded to move along.

After the game Mr. Halberg of Central sprung a very pleasant surprise. Several boats were lined up, and when lunch baskets had been safely deposited the girls spent a quiet but pleasant hour on the water.

The crowning feature of the day was the arrival of Mr. Judy. For once official dignity was forgotten and he actually played ball. Mr. Judy had come to spend his lunch hour with us, and oh! such a lunch. Shut your eyes and picture a spread on the soft green grass, with everything to eat imaginable. It would take too long to enumerate all the goodies; sufficient to say that we sat there something like two hours. Mr. Judy remained an additional hour—the reason, a quart bottle of olives in sight (but out of sight soon after).

At the suggestion of Mr. Scates, of Irving, and Mr. Dunning, of Central, the races commenced. We all know why they were so anxious to have racing—just to show us how well they can run. It would not be fair to publish the names of the ones who lagged behind in that race, therefore we shall withhold the names of the winners.

It is the first time we had the pleasure of meeting Mr. Touscher's "lady friend," Helen Sillery, four years old. She was quite a favorite.

There were cameras of all descriptions, while the different poses and attitudes assumed for the pictures afforded much amusement. Mr. Watkins and Mr. Whitehead of Wabash left the grounds for a short time, but soon returned with ten quarts of ice cream. That was wholly unexpected but was very much appreciated.

Many were the regrets expressed when the day was ended, but cheer up! This is only the first of a series of picnics planned for this summer.



PICNIC OF AUSTIN EVENING FORCE AT GARFIELD PARK.

Austin Picnic

The Austin evening force decided to have a good old-fashioned picnic. June 19th was the date selected. At 10:30 a. m. the girls assembled at the boat house in Garfield Park. It was very warm, but everybody was ready for a good time. A fine lunch was spread out under the trees. Those that were brave enough to venture into the hot sun went boating with the usual number of sunburned arms. As the afternoon drew to a close the girls gathered up their belongings and started for work after a very pleasant day.

The girls with their lunch baskets, and the young men with their tennis rackets, were fitting subjects for any artist as they assembled in picturesque Lincoln Park at 9:30 in the morning.

Baseball playing came first, and the girls deserve much praise for their swiftness and ability; for a while, really, it looked as if the boys would not score at all (they all belong to the telephone team), but finally by putting forth every effort they outdid the girls just a tiny bit. None of the League Scouts were present; had they been, a number of resignations would surely have been sent in; even Mr. McIntyre of Harrison, an

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,

Correspondents

Weddings

Cupid is not forgetting Lawndale. Anna Mack, clerk, resigned to be married June 25th to Gilbert Hange.

Helen Bader, day supervisor at Lawndale, resigned June 14th to be married to Charles Jost. The day force presented to each of the brides-to-be a beautiful cut-glass bowl and wishes for a very happy future.

Calumet day force joined in hearty congratulations and best wishes to Kathryn Gorman, Margaret McKean, Emma Henderson and Florence McDonald, who resigned to become June brides. Each of the coming brides was remembered with a little gift at a luncheon served in their honor in the Calumet dining-room, June 26th.

Lillian McMahan, supervisor at Calumet, has resigned to be married August 6th. The supervisors gave a dinner in her honor at the Boston Oyster House, July 25th.

Elizabeth O'Neill, of Toll, was married to H. Meyers June 25th.

Gussie Steinhabel, of Toll, who has been with the Company seven years, was married June 25th to Charles Kasbach.

Emma Kalebut, of Toll, has resigned to be married to T. J. Moriarty.

Mabel Munsterman, Austin day supervisor, resigned to be married to Dave C. Smith, on the evening of July 9th, at the home of her parents in Maywood.

Clara Michelett, acting supervisor, resigned to be married to Arthur Juergens on Tuesday morning, July 8th.

Both supervisors were presented with very handsome cake sets by the day force.

On Tuesday evening, July 1st, the day supervisors and clerks gave a dinner at the Boston Oyster House, in honor of these young ladies. Both have been connected with Austin office for a number of years, and won many friends who now wish them a very happy future.

Personals

J. Epps Brown, Vice President and General Manager of the Southern Bell Telephone and Telegraph Company, visited Chicago, July 22nd, on business connected with the Southern Bell.

Mr. Brown was the guest at luncheon of H. F. Hill, General Manager of the Chicago Telephone Company, on which occasion Commercial Superintendent Weems, of the Cumberland Telephone and Telegraph Company, Frank A. Ketcham of the Western Electric Company, and W. Rufus Abbott and Clifford Arrick, of the Chicago Telephone Company, "also ran."

Mr. Brown visited Hawthorne in the afternoon and was later entertained at dinner by B. E. Sunny, President of the Central Group Companies of the Bell System.

Service Standing

The following is the place position of the offices for the month of June, 1913:

City offices—	
First	Calumet
Second	North
*Third	Douglas
*Third	Yards
Fifth	Edgewater
*Tied for third place.	
Neighborhood offices—	
First	South Chicago
Second	Austin

Social Affairs

The Central evening supervisors are enthusiastic over a picnic which they enjoyed at the home of Carrie Inskeep, near Clearing. The picnic luncheon was served on the lawn, and a jolly group partook of the bountiful spread. Foot races were a source

of much fun. Celia Larkin took the first prize—a book; Anna Rowan received the booby prize—a little dog. Fortunes were told, and all were so good that the girls came on for the evening work in a most happy frame of mind.

The split-trick operators at Calumet had a theater party at the National on June 17th. A party of Central girls spent a jolly evening at the home of Mary Wood, on Friday evening, June 27th. The costumes were unique, but we were unable to get a picture.

Suburban Promotions

Evanston: H. Machler, operator to supervisor; J. Champoux, operator to repair clerk.

Joliet: A. O'Brien, operator to night supervisor.

Michigan, Division

David H. Dodge, Correspondent,
Detroit

Organization Changes

J. E. Scott has been appointed district commercial manager of the Eastern District, succeeding W. D. Clark, resigned. Mr. Clark goes to Portland, Ore., to become vice president and general manager of the Columbia Creosoting Company.

P. B. X. Development in Detroit

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of May, 1913, were the following:

	Trunks.	Terminals.
Ralph B. Wilkinson, attorney (new)	3	7
F. Walter Gulbert, steel (new) ..	2	6
City Concrete & Coal Co. (new) ..	2	6
National Gas, Electric Light & Power Co. (replacing inter-com. set of 1 trunk and 5 term.)	2	8
Gemmer Mfg. Co., engines and auto parts (addit.)	1	5
Dalgee Steger Iron Works (new) ..	2	6
Johnson-Larsen Co., steam-pipe covering (new)	2	7
Stewart Warner Speedometer Corp. (new)	3	8
Kern Brewing Co. (new)	2	6
Parish Mfg. Co., steel products (new)	2	6
Schaefer Frenzel Co., auto supplies (new)	2	6
Wahl Motor Sales Co. (new)	2	7
Geo. F. Webber, furniture (new) ..	2	6
Spencer & Howes, butter, eggs and cheese (news)	2	6
Middleditch, B., machinist (new) ..	2	6

St. Ignatians Pleased

The St. Ignace (Mich.) *Enterprise*, commenting on a statement that some of the towns in the Upper Michigan Peninsula (where there has recently been a difficult cut-over) are criticising the service, remarks: "We are pleased to announce that St. Ignace is an exception and that the service here is all that could be desired. This is no doubt caused from the fact that Manager Mulvehill is always on the job and his corps of able assistants, consisting of the Misses Gallagher, Rousseau and Smith, take both pains and pleasure in attending to the wants of the patrons of the company."

Detroit District

F. J. Ellis, special agent, astonished and gratified at the publicity given to his motor boat by occasional references in *BELL TELEPHONE NEWS*, now wishes us to state that it is for sale. However, the line has got to be drawn somewhere. We respectfully refer him to the advertising department.



ADJUSTMENT DEPARTMENT, DETROIT.

This part of the commercial department attends to disconnected telephones, "subway notices," or those which notify that the subscriber asks for something not on the original order, disputed bills, etc.—in fact, any detail on which there is a difference of opinion between the subscriber and the telephone company. To handle these matters properly requires tact and a good knowledge of commercial telephony.

This department is in charge of E. M. Steiner, who is seen, with his men, in the above picture. The top row, from left to right, consists of: J. E. Jeffries, Louis Dooville, H. C. Hartung, J. H. Duckett, E. M. Steiner, William Melbeyer, W. H. Johnson, J. A. Rogan and C. E. Culver. Seated: A. T. Babbitt, C. A. Reed, F. J. Stevens and R. W. Rothermel. Seated at the right end is C. S. Slack, commercial manager of the Detroit district, to whom the adjustment department reports.

An interested crowd recently watched, from a window on the second floor, Commercial Superintendent G. M. Welch drive one of the telephone company's cars. It was his first experience at this stunt. It is said that Mr. Welch has increased lately the amount of his accident insurance. It is whispered, also, that Mr. Boyce wants the insurance on this particular car increased. These things, of course, may be coincidences.

Eastern District

Cherry Hill toll station has been discontinued. This point should now be shown in the tariff and route book as "Check Ypsilanti."

Reading exchange has been closed, service at that point now being furnished by the Reading Central (connecting) Telephone Company.

Perrinsville toll station has been discontinued. This point should now be listed as Class D on Plymouth.

F. L. Pierce has been appointed manager of the Eagle Point, Clark's Lake, toll station, succeeding Fred Lewis, who has sold the resort.

New Hudson, at which the toll station has been discontinued, should now be listed as Class D on South Lyon, Mich.

J. W. Riddle has succeeded E. T. Nicholson as manager at Plymouth.

On Wednesday evening, June 18th, the members of the Jackson day traffic force, together with the members of the commercial department, enjoyed a picnic luncheon at Vandercook's Lake. The evening was enjoyably spent in boating and dancing. But, in spite of the elaborate supper and the fact that our girls were constant patrons of the roller coaster and the merry-go-round, none of the picnickers was on the sick list the following morning. Preparations are being made for a similar outing to be given for the relief force in the near future.

H. H. Darling, wire chief at Jackson, was married June 24th to Clara L. Frey.

Marquette District

E. J. Larsen has been appointed commercial agent for the Marquette District. Mr. Larsen recently graduated from the State University of Minnesota in the law department.

Felch toll station has been discontinued. The farmers nearby may use the toll service at Old Metropolitan, one mile east of Felch.

Saginaw District

E. J. Spofford has resigned as manager of the Turner toll station and is succeeded by C. W. Houghton.

Roadway Company Notes

The Kobs Roadway Company, of East Tawas, was connected June 13th with fourteen subscribers.

Illinois Division

A. J. Parsons, Correspondent, Springfield

Well Satisfied Dentist

The following letter was received from Shanklin, the Dentist, in regard to the recent installation of a No. 2 private branch exchange in his office in Rockford:

Rockford, Ill., July 4, 1913.

Mr. F. L. Eby,

Mgr. Cent. Union Tel. Co., Rockford, Ill.

Dear Sir:—I am taking this means of expressing to you and your company the compliments that are justly due you for the splendid service I am getting out of the No. 2 P. B. X. which has been installed in my office. It seems that it is just what I needed and the unnecessary steps that it saves me are almost incalculable in comfort and peace of mind, if in no other way. When the new listings come out in the directory now in press I am sure the benefits will be even greater than at present.

Herewith you will please find my check for \$5 payable to the order of your L. C. Williamson, who did the work on the interior of the building. Please ask him to accept it and buy himself a hat to his own liking. His gentlemanly manner and courteous behavior here in the office at trying and busy times is worthy of more than ordinary mention. Inasmuch as it is absolutely above even a slight censure or reproach of thought. Yours very respectfully,

R. L. SHANKLIN.

Illinois Division Notes

E. S. Sterrett, of the Abingdon Home Telephone Company, recently made a short visit to the commercial superintendent's office at Springfield. His company has erected a new brick exchange building, installed a 1,000-line common-battery board, put in underground cable, and generally rehabilitated the plant at Abingdon. The company has 750 subscribers and expects to increase this number within a short time. The new plant will be ready for operation about September 1st.

Plant Superintendent H. B. Lewis and his office force moved from Springfield to Chicago on April 25th. Your correspondent was so overcome by the loss of so many good friends that he neglected to make mention of this change in previous issues.

Ethel Katterjohn, of the commercial superintendent's office, spent a very pleasant month visiting with relatives and friends in Arkansas.

Alton District

Contracts have just been executed for a private branch exchange for the Illinois Glass Company at Alton, the largest bottling glass house in the world. The Glass company is erecting a beautiful new three-story office building at Second and Washington streets which will be completed August 15th. A switchboard will be installed in this new office building, connecting all departments.

Traffic agreements have just been completed with the Alhambra Telephone Company.

Peter Wise is a new repairman at Alton. L. N. Harris has resigned his position as chief clerk to District Plant Chief A. B. Singer, at Alton, to accept a position as commercial agent at Centralla. Mr. Harris' position will be filled by F. A. Simms.

Alma Highshoe, district traffic instructor, conducted a very successful traffic meeting at Collinsville July 2d.

Philaphena Kettmiss, chief clerk to District Commercial Manager R. Wilder, at Alton, has resigned her position after eight years' service with the company. Miss Kettmiss was married to Edwin O'Brien at St. Patrick's Church, Alton, at high noon, July 15th.

The excursion given Tuesday evening, July 8th, on the Steamer *St. Paul* by the telephone girls of Alton was a complete success. Over 1,200 tickets were sold. The boat left the Alton landing at 8:15 p. m., returning at 12:30 p. m. All the operators from Alton and Wood River through a special arrangement were able to attend. Operators from Edwardsville, Collinsville, Jerseyville and Grafton were in attendance and a very enjoyable time was spent in dancing. Professor Danes' Cabaret Trio, of St. Louis, secured for this occasion, rendered several enjoyable vocal selections. The boat was very tastefully decorated with blue bell tags and blue bell electric light shades. The out of town guests were: E. A. de Peyster, traffic superintendent, Chicago; F. E. Chandler, district traffic chief, Chicago; F. N. Farnell, division traffic superintendent, Kansas City, Mo.; C. G. Seytter, district traffic chief, Centralla; L. M. Lax, manager at Edwardsville; E. L. Lax, plant chief at Edwardsville; Louise Brase, chief operator at Edwardsville; B. G. Seymour, manager, Collinsville; Virginia Bede, chief operator, Collinsville; Katherine Darondy, commercial clerk, Collinsville; Dr. Schwartz, manager, Jerseyville, and Abbio Voorhees, chief operator, Jerseyville.

Decatur District

Donald J. Starr has been appointed collector at Decatur, succeeding Robert F. Smith. Mr. Smith left June 15th to visit Denver and other western points.

Myrtle Howland, local operator at Decatur, was married June 29th to Roy Allen of Decatur.

Minola Campbell, local operator at Decatur, is on a leave of absence on account of illness.

Katherine Quinn, local supervisor at Decatur, spent her vacation at Altamont, Ill.

Nina Thompson, toll operator at Decatur, resigned her position and was married on June 29th to Ross Billings of the Central Union equipment department at Quincy, Ill.

Mr. and Mrs. Henry Baugh left Decatur on July 15th for Houston, Tex. Mr. Baugh is employed as testman at Decatur and Mrs. Baugh is ticket clerk.

Maude Parke, local operator at Decatur, resigned her position on June 30th and was married July 2d to Joseph Kennard.

Galesburg District

Minnie Truelson, toll operator at Galesburg for several years, has resigned.

Lillie Malmstead and Emma Lathrop, local operators at Galesburg, enjoyed two weeks' vacations.

Blanche Burns has resumed her duties as toll operator at Galesburg after a few days' illness with tonsillitis.

Manager Quimby, of Kewanee, closed a contract with the Boss Manufacturing Company for a No. 2 private branch exchange of nineteen stations and two trunks.

Grace Byram, chief clerk to District Commercial Manager Brown, at Kankakee, while on her vacation called upon her many friends at Galesburg.

J. M. Easton, commercial agent at Galesburg, resigned and took the position of storekeeper in the plant department.

H. C. Hanke, installation foreman for the Western Electric Company, and six assistants, are putting in 1,000 multiple and 620 answering jacks at Galesburg.

Mr. and Mrs. J. O. Shafer of Illiopolis, Ill., drove over to Galesburg in their auto and spent several days with Manager Kelly's family and took in the picnic held on Sunday, June 15th. Mr. Shafer owns the telephone exchange at Illiopolis.

A new 320-line private branch exchange switchboard has been ordered for the Union Hotel at Galesburg as the hotel has outgrown its present equipment.

Herbert Miller, of Galesburg, just graduated from Knox College, has accepted a position with the traffic department in Chicago. Mr. Miller was captain of the track team and an all-around athlete.

A new universal sign has been placed in



WESTERN UNION OFFICE AT GALESBURG, ILL.

the window of the Galesburg office of the Western Union Telegraph Company. The sign is very handsome and makes a striking appearance.

Jacksonville District

Veta Todd, collector at Roodhouse, resigned and was married June 10th.

Work on the new Jacksonville-St. Louis circuit was commenced July 1st.

Paris District

Edward Connelly, formerly messenger boy for the Western Union Telegraph Company at the Class 10 office, at Paris, has qualified as an operator and accepted a position with the Western Union at Decatur.

Walter Davis of Moline has been appointed cableman in the Paris District.

Marie Barr, ticket clerk at Paris, has resigned.

Dora Driskell, local operator at Paris, spent a week's vacation in Danville.

Peoria District

A private branch exchange of two trunks and six stations has been installed for J. D. Roszell and Company, Peoria.

Contracts have been secured from C. W. Dull, Peoria, for a hotel system private branch exchange, No. 4 switchboard, two trunks and thirty stations.

Contracts have been secured covering the installation of a No. 2 private branch exchange of one trunk and six stations for the Elsner Grocery Company, Champaign.

The Metzler & Schafer Grocery Company, Champaign, has ordered a No. 4 private branch exchange with three trunks and eight stations.

Lawrence K. Cecil has been appointed collector at Champaign, succeeding F. S. Fridlie, who resigned and moved his family to Chicago.

L. Du Hamel, local operator at Champaign, has returned from a month's vacation in Arkansas.

I. Fisher, toll operator at Champaign, has resigned to accept a position as private exchange operator for the Illinois Traction System.

Quincy District

Nina Billings has been transferred from Decatur to the Quincy exchange as instructor in the traffic department.

Florence Hamann, Quincy local operator, after an illness of two months died. Miss Hamann was with the company about four years, and was a favorite among the operators, subscribers, and her superiors.

The Bell operators gave a delightful excursion on the Steamer *Sidney*, and 1,200 people enjoyed the cool breezes from the great Mississippi. It was a great success, both socially and financially, the operators clearing \$350.

Miss M. B. Wade has been appointed stenographer in the Quincy commercial department, to succeed Charolette Graff.

C. S. Dickhut has taken a position as collector at Quincy to succeed H. R. Whipple, resigned.

Rockford District

On July 8th, about 3:45 p. m., Rockford was visited by the most destructive wind and rain storm in the memory of any resident. The storm lasted about one-half hour. The loss is estimated at a quarter of a million dollars. Thousands of trees are down all over the city, plate glass windows were broken by the wind and streets are strewn with signs. The damage to the Central Union Telephone Company was large. About thirty poles were broken off by trees falling on them, twelve cables were burned out and approximately 800 drop wires went down. About 2,500 telephones are out of service. The Electric Light Company was in no better condition and the Home Telephone Company suffered even worse than the other companies.

A No. 2 private branch exchange has been installed with one trunk line and four sub-stations for Dr. Louis A. Schultz in his office in the Rockford Trust Building.

In our last item in *The News* mention was made of the expected wedding of Vera Ryan, former chief operator at Rockford. The expected happened and on June 24th she was married to Clair Sheldon, of Minneapolis, Minn. A number of her fellow employees boarded the train at Rockford and rode to New Milford, where they intercepted the "Newly-Weds," who had gone there in an automobile, and accompanied them as far as Davis Junction. Every one on the train was introduced to the bridal couple and, with rice, tin-horns, and hand-bills announcing the marriage, it did not take long to inform all the passengers that this was the start of the honeymoon trip.

Nellie Nugent has resigned her position as collector at the Rockford exchange and is succeeded by Della Brown.

Rock Island District

Ed Crouse, assignment man at Moline, enjoyed a week's vacation with relatives at Jacksonville.

Additional cable extensions from Rock Island to Sears have been completed by Foreman C. E. Johnson.

The Western Electric Company has started work on the installation of 1,700 subscribers' multiple, 640 answering jacks and other miscellaneous equipment at Rock Island.

C. W. Morford, formerly of the construction department, has accepted the position of cable repairman at Moline.

Oliver DeFrates, cable helper at Moline, spent a week's vacation with relatives at Jacksonville.

L. J. Stoner has resigned his position as installer at Moline and returned to his home at Galesburg.

Work of changing the central office building at Moline is progressing very rapidly. This work covers the removal of eight and one-half feet from the front of the building on account of the recent widening of the street; also the extension of the building thirty feet to the rear to care for additional switchboard equipment.

Mont Vermillion has accepted the position of material clerk at Moline.

Irving O. Schultz has entirely recovered from his recent illness and is now filling the position of general foreman at Moline, Rock Island and East Moline.

Lyle Reynolds, formerly of the Michigan State Telephone Company, has accepted the position of toll testman at Rock Island.

Hantz and Bohusen, Rock Island, have installed a No. 4 private branch exchange of three trunks and sixteen stations. Installation was under supervision of Fred Hemenway.

The Western Electric Company will install two additional switchboard sections at Moline.

The entire exchange building at Sterling has been papered and painted.

Katherine Bush, night chief operator at Sterling, has resigned and her place has been taken by Mrs. Clara Bush.

A farewell party was given at the home of Miss F. Stephenson in honor of Helen Prestin, a local operator at Sterling who recently resigned. The evening was passed with games and music and a splendid luncheon was served to about eighteen operators, who presented Miss Prestin with a beautiful cross and chain as a token of esteem.

Gladys Sweeny, operator at Sterling, spent her vacation at Mt. Morris.

Naomi Relsner, toll operator at Sterling, has gone to Montana on leave of absence for the summer.

The rebuilding of the Sterling-Morrison pole lead has been completed and work is progressing rapidly on the Morrison-Rock Island lead.

The Sterling commercial department recently took orders for two No. 2 private branch exchanges of five stations each.

Springfield District

Mayme Finnigan, chief operator at Springfield, spent her vacation in the country.

Wisconsin Division

**F. M. McEniry, Correspondent,
Milwaukee**

Appleton District

O. Blackwood, repairman at Appleton, has been transferred to the construction department. He is succeeded by Ernest Maynard who was transferred from installer to repairman. Harry Reese has been employed to succeed Ernest Maynard.

Ed. Ratzman, Appleton, has been employed as installer to succeed Harold Taylor, resigned.

Jean Mills, chief operator at Berlin, spent a two weeks' vacation with relatives and friends in the country.

Mrs. Clara Niles, night operator at De Pere, has resigned to engage in other work. Jeanette Pergoli, formerly night operator at the Fox River office, succeeds Mrs. Niles.



WISCONSIN TELEPHONE EXHIBIT IN "MADE IN RACINE" INDUSTRIAL EXPOSITION.

A "Made in Racine" industrial exposition was held June 9th to 14th under auspices of the Racine Commercial Club. The exhibits were displayed in the mammoth machine shop of the J. I. Case Threshing Machine Company's south plant, which is 514 feet long and 145 feet wide. The products of 200 local factories were shown. The factories employ more than 17,000 workers with an annual payroll of \$15,000,000 and a total capitalization of over \$75,000,000. Included in the exposition were automobiles, threshing machines, plows, engines, rubber goods, boats, wagons, boilers, trunks, woolen goods, boots and shoes, steel shoes, school furniture, incubators, laundry machinery, leather, awnings, cement, files, camp furniture, malted milk, signs, paper boxes, sash, doors and blinds. The exhibits were a revelation to those unacquainted with the rapid and progressive growth of Racine.

Manager B. A. Oliver was in charge of the telephone display which was most attractively arranged in a space measuring sixteen by twenty feet. Here was found an operator at a No. 4, eighty-line switchboard complete in every detail. Service was given through the entire building by thirty stations. On either side of the operator, long-distance booths were placed making it convenient for those making out of town calls.

During the exposition 50,000 people viewed the telephone exhibit.

Ethel Eggleston spent her vacation in Charleston, W. Va.

Eva Fox, traffic chief at Springfield, spent a vacation in Florida.

Lulu Fink, toll operator at Springfield, has been transferred to the accounting department.

At the time of the recent hold-up of an Illinois Central train, about twelve miles south of Springfield, the Central Union Telephone Company through its operating department was able to give the sheriff's force the first definite information regarding the robbers. A Springfield subscriber informed the operator that she wanted a certain party because she had seen two men go into her barn. The operator told her of the hold-up, and asked her to give that information to the sheriff's force. The sheriff's forces were very much pleased, although they did not arrive at the location in time to effect a capture.

Adah Lekey, toll operator at De Pere, enjoyed a three weeks' vacation visiting at Wausau and Milwaukee.

Florence Albers has accepted a position at De Pere succeeding Sarah Bourgoine, resigned. Miss Bourgoine has taken a position in Chicago.

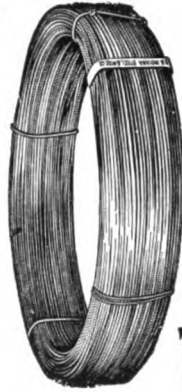
Nell Goemans, operator at De Pere, has resumed her duties after an operation for appendicitis.

Ella Phlefer, assistant chief operator at Green Bay, has been promoted to chief operator, succeeding Sadie Coyle, resigned. Gertrude Bradford has been promoted to assistant chief operator.

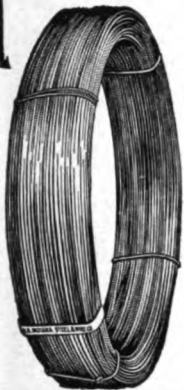
A contract has been secured by E. P. Parish, commercial agent at Green Bay, for a No. 1 private branch exchange, with one trunk and eleven stations at the plant of the Willow Grass Rug Company, Green Bay.

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.



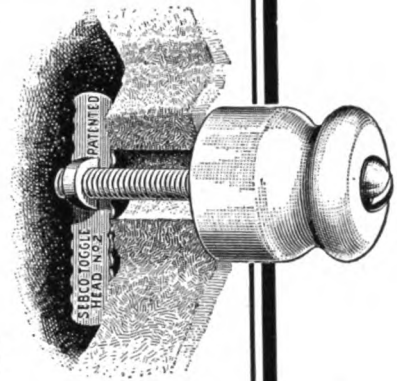
Write for FREE SAMPLE
Make Test and Comparison



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana

Put It Up with a SEBCO Toggle Bolt



You can't make a solid, safe job any other way. This will stand any strain.

To fasten insulators, switches, telephone sets, meters, wiring and all electrical apparatus in a tiled wall, through plaster, hollow brick, marble, slate, or wherever the surface is backed by hollow space.

Don't trust your work to screws. Put it up with SEBCO Toggle Bolts and you'll know it's going to "stay put."

FREE Samples and catalog No. 14 sent on request.

STAR EXPANSION BOLT CO.
147-149 Cedar St., - - New York



FRANK E. SCHMIDT.

Frank E. Schmidt, manager of the Kaukauna exchange of the Wisconsin Telephone Company, was born at Jefferson, Wis., February 5, 1889, and was educated in the Jefferson public and high schools.

On October 10, 1907, he entered the employ of the Wisconsin Telephone Company at Jefferson, Wis., as repairman and remained in that capacity until January 1, 1910, when he was promoted to the Jefferson exchange as manager. On May 1, 1912, he was transferred to Evansville as manager and remained there until September 1, 1912, when he left to engage in other business.

He again entered the employ of the Wisconsin Telephone Company in the right-of-way department on January 8, 1913, and was transferred to Kaukauna as manager on March 19, 1913.

The lines and subscribers of the former Fox River Valley Telephone Company have been cut into the exchange of the Wisconsin Telephone Company at Green Bay, and all telephone users are now being served by one system.

Foreman Phlefer has completed about seven miles of line which will make room for twelve new subscribers on rural lines at Hortonville.

Clara Koch, toll operator at the Manitowoc exchange, spent her vacation at Milwaukee.

Nelda Thompson, local operator at Manitowoc, spent her vacation at Antigo.

J. C. Babbitt, wire chief at Marinette, resigned and is succeeded by Fred H. Larkin, of Milwaukee.

Exzilda Fleurant and Elsie Weber, toll operators at Marinette, spent their vacations at Sturgeon Bay and Kewaunee.

Alice Hart, local operator at Neenah-Menasha, resigned June 1st and was married to Ed. Meyer, of Green Bay, on June 24th.

Grace Casperson, local operator at Neenah-Menasha, has been ill.

Flora Partzoid, night operator at Neenah, has recovered from a two weeks' illness.

Hazel Willarson, assistant clerk at Neenah, spent a three weeks' vacation in Lincoln, Neb.

George Lovelace and crew have been at New London repairing former Fox River Valley rural lines.

Alice Roe, operator at Omro, spent a week's vacation at Eureka.

Katherine Meyer, assistant chief operator at Oshkosh, resigned and was married the early part of June to Charles Harloff. Miss Meyer was entertained at a shower at the home of Anna Bond and also by Elizabeth Kenny at a miscellaneous shower.

Mayme Agnew, clerk at Oshkosh, spent her vacation at Minneapolis and Rhinelander.

Elsie Lee, supervisor at Oshkosh, has resigned to be married.

George Bellmer, installer at Oshkosh, has resumed his duties after having been laid up on account of an accident.

Claudia DeMott, toll operator at the Clintonville exchange, has resigned. Julia St. Louis succeeds her.

The Red River Telephone Company has started to build its lines. The company connected up four new subscribers last month which makes a total of fifty-three subscribers connected at the Shawano exchange.

The Gillett Rural Telephone Company has been building lines for the past month to

connect up about fifteen new subscribers.

The Bonduel Telephone Company has been building new lines to connect up about twenty new subscribers.

The Clell Green Valley Toll Line Company has put in thirteen new telephones during the past month. This company now has 225 telephones.

Flora Fax, formerly chief operator at Sturgeon Bay, was married June 4th to C. Gunderson of Clintonville, Wis. Miss Fax was in the employ of the Wisconsin Telephone Company for eight years.

Sadie Coyle, chief operator at Green Bay, was married during June to Charles Don Levy.

Eau Claire District

W. C. Stevens, of Manawa, has been appointed repairman at Stanley, succeeding Eugene Schultheis, transferred to Washburn, Wis., as manager.

W. D. Stewart has been added to the regular plant force at Chippewa Falls.

Margaret McDonald has resigned as chief operator at Chippewa Falls and is succeeded by Miss Kehnl. Miss Ranscher is promoted to assistant chief. Miss McDonald took a two week's vacation and then joined the toll operating force.

R. Ransseau, local operator at Chippewa Falls, spent a week's vacation at Chetek.

Jack Richardson, construction foreman, and crew, made an extension to the cable plant in Bayfield.

The Bayfield Farmers' Telephone Company, connecting with the Bayfield exchange, added one more circuit in order to give better service.

R. L. Harrell, wire chief at Hudson, has resigned to go into the inside wiring and electrical supply business. Charles Vincent, of Chippewa Falls, succeeds Mr. Harrell.

Magnild Kvarnes, assistant chief operator at Hudson, spent her two weeks' vacation at Duluth, Minn.

Zelma Lomnes, toll operator at Hudson, resigned June 26th, to accept a position as teacher.

The marriage of Ina V. Cartmill, of Stevens Point, and Benjamin Bean, of International Falls, Minn., took place at 8:30 o'clock Tuesday evening, June 24th. Miss Cartmill was employed at the Stevens Point exchange for nine years, and resigned her position as clerk in the manager's office on June 8th.

Amanda Hansen, chief operator at Stevens Point, resigned July 1st to return to her home at Hortonville.

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



"Thomas Quality" Porcelain Insulators

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.

Manufactured by

The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

Offices in all principal cities



The
power
behind
the
magneto
'phone

The
Western Electric
BLUE BELL BATTERY
a telephone battery of long life.
Boost it, Mr. Manager!

Western Electric Company



Mary Seidler, assistant clerk at Stevens Point, has been promoted to chief operator. Mary Van Rossum succeeded Miss Seidler.

Borghild Angested, local operator at Stevens Point, resigned June 21st and was succeeded by Luella Welk.

Flora Smith, toll operator at Stevens Point, has been promoted to chief clerk, to succeed Ina Cartmill.

Madison District

Bradford Hamilton, clerk in the Madison District office, spent a few days in Milwaukee and Wauwatosa recently.

T. H. Llen, chief clerk of the Madison district, spent a week in Minnesota visiting relatives and friends.

Mary Shallenburg, assistant toll chief operator, and Nora Richards, local supervisor at Madison, left for Kankakee, Ill., to accept positions as chief and assistant chief operators.

Frieda Sauthoff spent a week's vacation in Waterloo, Wis., visiting friends.

Fred Cummings, collection clerk at the Madison Exchange, visited Chicago recently.

A. J. Weber, solicitor in the Appleton District, has been transferred to the Madison District temporarily.

Kathryn Jacobs, clerk at Baraboo, visited Madison recently to attend the wedding of a friend.

A canvass of all the subscribers at the Baraboo Exchange, covering a change of rates, has just been completed.

J. G. Miller, former repairman at White-water, has been transferred to Jefferson as manager. Earl Gibbs has been transferred to the plant department.

Clarence Mayer, former lineman at Madison, was transferred to Horicon as manager to succeed V. W. Delst, who has been transferred to the Madison district office.

Milwaukee District

A farewell party was given at Stibbs Hall at Racine for Mollie Hettrich, former chief operator. The evening was opened with a short musicale to which Esther Clunie, Bertha Lowe, Mabel Parker and Jeanette Johnson contributed numbers. The rest of the evening was spent in games and dancing. Prizes were awarded Minnie Nelson, Rosella Steinberg and Esther Rapp. The

party closed with a farewell song composed by Mabel Parker and sung to the tune of "America."

Mrs. Miller, former assistant chief operator at Racine, has been appointed chief operator, succeeding Miss Hettrich. Alice Eckstrom is appointed assistant chief operator, Cathryn Cullen toll supervisor and Lillian Johnson supervisor.

Miss Minnie Nelson, supervisor at Racine, was married to Edward Aller, June 11th. The bride wore a gown of white ivory satin and carried a prayer book shower of sweet peas. She was attended by Rosella Steinberg, local operator.

On May 27th Marie Fedderson, supervisor at Racine, gave a shower for Minnie Nelson, supervisor, and Miss Nelson was presented with a beautiful cut glass water set. Among those present were: Mrs. Miller, chief operator; Mabel Parker, Mabel Smith, Bertha Lowe, Hattie Zimmers, Helen Petersen, Lillian Johnson, Lillian Perpeth, supervisors; Alice Eckstrom, assistant chief operator; Ruth Mohr, Emma Peterson, clerks; Alma Schraeder, operator, and Alma Peterson and Caniera Larson.

Alma Schraeder, local operator at Racine, resigned to be married to Arthur Olson, June 18th.

Ohio Division

**B. T. Calaway, Correspondent,
Columbus**

East Wind in Maumee Bay

An east wind was blowing on Maumee Bay, near Toledo, on June 22d, and eight hearts were gladdened thereby as shown in the pictures. A fair catch was made and if the party had spent the whole day there is little doubt that the finny population of the bay would have been practically annihilated. Those in the party were: K. D. Schaffer, district plant chief; D. D. Ellenwood, district foreman; Harry Walter, district plant chief clerk; A. L. Fox, plant chief; E. L. Wheaton, wagon foreman; P. J. Hoffman, engineer; P. E. Cowgill, traffic chief, and L. A. Steeg, district traffic chief.

Probably on account of their greater familiarity with "poles" and "lines," the plant men took first honors in the fishing, but the traffic boys were good-natured losers.



PICNIC PARTY ON MAUMEE BAY.

Operators Thanked

The Fremont Chamber of Commerce, of Fremont, Ohio, has officially thanked the Central Union Telephone Company, its management and forces, for the valuable help given during the flood last spring.

On May 31st W. G. Walt, president of the Chamber of Commerce and chairman of the Relief Committee, sent a letter to Manager W. L. Stump, of the Central Union exchange in Fremont, in which he stated that the Bell service enabled the committee to get food.

MUTE EVIDENCE. - 2 HOURS "WORK."



THE DAY'S CATCH ON MAUMEE BAY.

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of
ELECTRICAL HARDWARE
PLAIN and GALVANIZED



Pole Steps

Braces, Back and Cross Arm
Break Irons
Bolts, Arm and Eye and Thru
Cable Racks and Hooks
Guy Rods and Clamps
Hub Guards

Pole Steps and Brackets
Pole Balconies
Pothead Supports
Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc.



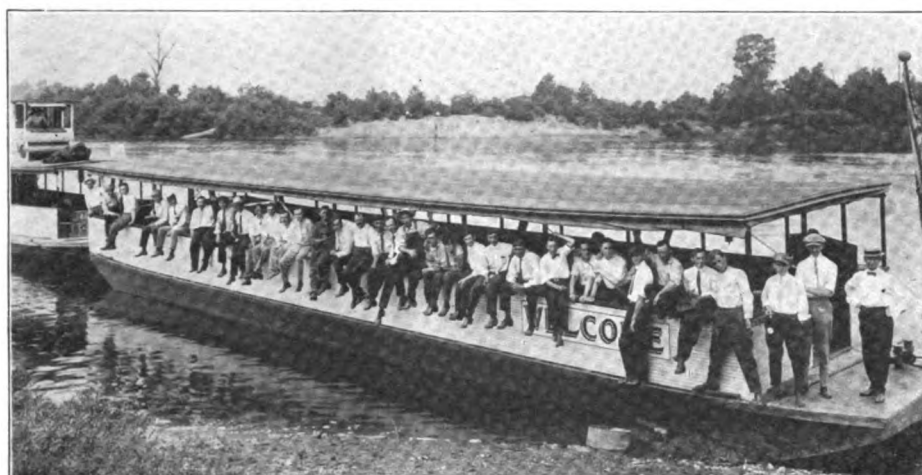
No. 20 Coil Fire Pot
Price Each—\$4.00 Net

Right-Up-To-The-Minute

C. & L. Fire Pots and Torches have for years represented the advanced practical ideas in the production of intense heat from gasoline gas. C. & L. kerosene tools embody the same high grade construction and produce intensely hot blue flames and are fuel savers. Improved bronze burners have special generator chambers, which are easily cleaned by the removal of a tube and wire gauze strainer. Tanks are reinforced and air pressure is produced by patented automatic brass pumps.

All leading jobbers will supply at factory price or we will ship direct if cash accompanies the order. We will be pleased to send you our booklet. Send for it today.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A.



ON THE BANKS OF THE WABASH.

The second annual outing of the Bell Telephone Society of Terre Haute, Ind., was held on June 21st and attended by about forty members. The Steamer *Winner* and Barge *Welcome* left the dock at nine o'clock for the sandbar above Tecumseh, which is fourteen miles up the Wabash River. Music was furnished by the society's orchestra.

About noon the sandbar was reached and the refreshment committee announced that "eats" were in order. The meal, which was a huge success, was served on the barge. In a few minutes various athletic contests were in progress. The most exciting, as well as the most amusing contest, was the tug-of-war. This was won by Captain Daesee's team, but was later protested by Captain Evans on the ground that some "ringers" had been used. The Athletic Committee, however, decided that Captain Daesee won the contest fairly and the prize was awarded.

George C. Thompson was the all-around athlete of the day, winning the majority of the contests. During the afternoon some of the members of the society fished and "Robinson Crusoe" Vrydag was successful in landing a large gar fish.

Out-of-town members and visitors present were Messrs. Hamlin, Daniels, Thompson, Leach, Kendrick, Hutson, Moseley, Eudaily and Gallagher.

bedding and supplies and kept the city in touch with the governor, thereby securing the use of troops. Mr. Walcott especially thanked Nellie Swedersky, chief operator, and her assistants, Misses Doehler and Schwartz, for their brave and cheerful service.

Toledo District

Edith Vaughan, operator at Fostoria, resigned and was married on June 14th to Chester Wonders, at Monroe, Mich. Miss Vaughan is succeeded as operator by Nina Nobbs.

Irene Schumbacker, operator at Lima, resigned and was married July 1st, to W. A. Jones, Milwaukee, Wis.

On the evening of July 1st the traffic employees at Lima enjoyed a picnic at the City Park.

Harry Latson, formerly lineman at Upper Sandusky, has been transferred to toll line repairman at Marlon.

Recently a subscriber called at our office at Findlay and applied for a supply of "Blue Bell" fans for use at a church funeral. The fans were supplied.

The following private branch exchange contracts have been secured:

Kinsey Manufacturing Company, Toledo, one trunk, one cordless board and four stations.

Detroit & Toledo Shore Line Railway, Lang, Ohio, one trunk, one switchboard and four stations.

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Division Offices

L. N. Whitney, general manager, and J. W. Stickney, commercial superintendent, represented the Central Union Telephone Company with the Indianapolis Rotary Club on a trip to Dayton, Ohio, on June 15th. The Rotary Club went to Dayton as the guests of the Rotary Club of Dayton and the National Cash Register Company. The Rotary Club is an organization consisting of representative men from the various lines of business represented in Indianapolis, the object of which is to promote better relations between the various business concerns and to further the commercial interests of Indianapolis. District Commercial Manager Harry E. Allen of Dayton represented the Rotary Club of Dayton. A. C. Cronkhite, district commercial superintendent of the Western Union Telegraph Company, represented the Western Union from Indianapolis.

Miss Williamson, of the district commercial manager's office, spent her vacation by taking a train to St. Joe, Mich., and then a boat around the lakes to Milwaukee.

Department heads are considering the matter of setting aside some particular day for

"picnic day" at some of the larger exchanges. Why wouldn't this be a capital idea? Will everybody get behind it? Such picnics not only help the employees personally, but result in much good for the company.

J. W. Stickney, commercial superintendent, and C. M. Nesbitt, district commercial manager, with their families, combined business and pleasure Sunday, July 13th, by taking an automobile trip to Kokomo, Ind., and spending the day in an old-fashioned outing, as the guests of General Manager W. N. Turner, of the Citizens' Telephone Company of Kokomo.

The Indiana Democratic Editorial Association and the Indiana state officials were entertained over Sunday, July 13th, by Thomas Taggart at his famous resort, French Lick, Ind. About that time some uneasiness was felt as to the whereabouts of Frank Wampler, district commercial manager of the Southern District. After a thorough search had been made, it occurred to a member of the searching party that something was doing at French Lick, and when inquiry was made the missing man was located among the state officials and democratic editors. You can account for his being among the state officials on account of his having held down the job of "Night Governor" during the recent flood, but where he got his editorial standing is a mystery.

W. B. Thomas, construction superintendent, and W. R. Hirst, plant superintendent, drove from Indianapolis to Michigan City in an automobile following the toll lead on an inspection trip. They stopped at Culver long enough to throw a line in Lake Maxinkuckee a time or two.

Mollie Murray, stenographer in the plant department, was married on June 5th to Thomas Gillespie of Indianapolis.

L. N. Callicote, former assistant division cashier and later cashier at the Indianapolis exchange, who went to Arizona about five years ago, is back with the company in the plant department. Mr. Callicote spent several years in the Black Hills of South Dakota and in Arizona, and while he liked the desert, for family reasons he wished to come back to Indiana.

There has been considerable gloom in the division cashier's office because of some in-



OUTING OF MAIN B OPERATORS AT INDIANAPOLIS.

formation from the Auditor to the effect that Ohio has a new voucher scheme, which the division cashier did not know about. The gloom was dispelled, however, when Mr. Henry took the train for Columbus to find out about it.

The very thought of putting in centralized plant accounting in the fall has forced Harry Udally, plant accountant, to hurry away on his vacation in order to get ready for it. He said that if it is anything like centralized accounting, he would need all the brain and muscle he could get.

Traffic Superintendent Wayne and District Plant Chief Guy Green, of Indianapolis, were in Chicago the week of July 14-19 attending a traffic engineers' conference.

Line Foreman W. I. Thomas, of the construction department, Assistant Foreman M. M. Apple and C. Reinkie, with nine first-class and one second-class linemen, were transferred on July 5th to the Illinois Division, to assist in making the cut-over at Quincy, Ill.

Indianapolis District

Ethel Strain entertained with a miscellaneous shower in honor of Hazel King, Prospect operator, whose marriage to Floyd Crickmore took place in June. The decorations and ices were carried out in the wedding colors, pink and white. Among the guests were several Prospect operators. The bride-to-be received many beautiful gifts.

A handkerchief and hosiery shower was given at the Prospect office June 6th by several of the supervisors in honor of Frances Mennell, evening chief operator at the Prospect office. Miss Mennell's marriage to William H. Hanley occurred June 25th.

A miscellaneous shower was given by the I. W. C. club for Almetta Moore, who was married July 9th to Wesley Shooobridge.

Edith Foxall and Julia Laurel Parker, Woodruff operators, were June brides, the weddings occurring the latter part of the month.

The I. W. C. club gave a trolley party Friday evening, June 27th. Mrs. Jones, Woodruff chief operator, chaperoned.

The I. W. C. club gave a beach party July 9th.

Edna Hicks, local operator at Main, was promoted to supervisor.

Minnie Frantzreb, repair clerk, was transferred to the plant department. Elsie Holtman, local operator, succeeds Miss Frantzreb.

On the evening of June 16th the supervisors and operators on the B board gave a picnic at Broad Ripple Park.

Mrs. A. McWhinny, assisted by Mrs. Churchill, entertained with a luncheon at her home on Walnut street, Wednesday noon, June 25th. The guests were Margaret Cooper, Marie Brethauer, Anna Welch, Octavia Stevens and Jane Newnam.

A theater party for heads of the traffic department was given Wednesday night, June 26th, at the Murat.

The Buick Motor Company, Illinois and Vermont streets, installed a private branch exchange of one trunk and six terminals.

Indianapolis, in spite of the hot weather, is a very busy place this summer. The plant department has about 200 men actively engaged in extending both the outside and inside plant at an expense of approximately \$650,000, in order to take care of the demands for telephone service in Indianapolis.

Besides the 200 men employed by the plant department, the Chicago engineering department has twenty-five men in Indianapolis making an appraisal of the plant. The A. T. & T. Company has a force of men in Indianapolis making a seventeen-year study

of the telephone growth, upon which fundamental engineering plans may be based.

The plant department is beginning to turn over some of the facilities which are being provided and Manager H. F. Hill, Jr., is wearing a broad smile because now he can begin to go after the business. Mr. Hill says he is headed for 35,000 stations early next year.

Notwithstanding the interference which naturally results from the large amount of work which is being done at Indianapolis and the unusually hot weather which we have experienced, the telephone service has been exceptionally good and the operators are to be congratulated.

H. S. Gruver, assistant superintendent, and W. A. Hacker, director of the department of

Marion, Ind. Miss Mosure expects to make Marion her permanent home in the near future.

Hazel Lambert, operator of the Main office, was married to Leo James, of Gary, Ind., July 5th.

Several of the Main office B operators gave a picnic at Stop 4, on the Danville line.

The National Holiday was celebrated in a quiet way on July 3d at all of the Indianapolis offices. The rest rooms were appropriately decorated with beautiful flags. Cream and cake were served to all and each operator received a small silk flag as a souvenir. The accompanying picture of the Main dining room was taken just at noon time.



FOURTH OF JULY IN THE MAIN DINING ROOM, INDIANAPOLIS.

attendance of the Indianapolis public schools, went through the entire main building of the company on July 15th and expressed themselves as being well pleased with the treatment which our operators receive from the company. They laid especial emphasis on the training school, the hospital department, lunch rooms, roof garden, rest and reading rooms, etc. They are making a special study of conditions under which girls work in the various lines of business in the city.

About twenty-five employees were guests of the company at a theater party given at the Murat Temple recently. The play was for the benefit of the Fresh Air Mission.

The week of July 13th to July 20th was Chautauqua week at Indianapolis. A number of employees were guests of Mr. Whitney, the general manager, at one of the Chautauqua programs.

Lola Mosure, clerk at the Main office, has returned from a two weeks' vacation spent with her mother, Mrs. E. W. Willcuts, of

Lola Starry, service observer, surprised all of her friends by the announcement of her marriage to Earl Barnett, which took place during her vacation.

The marriage of Louise Jones, North office operator, took place in June.

Leona Parker, North office operator, entertained a number of employees of the North office at her home, July 9th.

The North office operators gave a picnic on June 15th at Broad Ripple park.

On the evening of June 26th the operators of the Belmont office gave a picnic at Riverside park.

Mr. and Mrs. Lovelace will be at home to their friends after August 1st at Lebanon, Ind. Mrs. Lovelace was formerly Laurel Parker of the Woodruff office.

Several members of the I. W. C. Club gave a picnic at Broad Ripple on the evening of June 29th.

A number of the Woodruff operators gave a picnic at Riverside Park on the evening of July 16th.

You Can Save Time and Money

By

Equipping Your Office With

UNEDIT CLIPS

They are easily applied, hold securely and will reduce your mailing and filing expense.

Manufactured by

Buffalo Machine Mfg. Co.

1354-1362 West Ave.

Buffalo, N. Y.



"Beldenite" Rubber Insulated Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-ame, Silkenamel and Cotenamel Magnet and Resistance Wires—Coil Windings—Cord Taps and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY

2318 South Western Avenue,

CHICAGO

Frances Mennel, assistant chief operator at the Prospect office, was married to William J. Hanley, Wednesday morning, June 25th, at Sacred Heart Church. After the wedding Mr. and Mrs. Hanley left on a trip to Chicago and Milwaukee. Miss Mennel was succeeded by Ida Gakstetter of the North office.

On Wednesday evening, July 2d, the girls of the Prospect office gave a trolley ride for the benefit of the Summer Mission. Refreshments were sold on the car and a very enjoyable evening was spent.

Gertrude Carley, a B operator at Prospect, took a vacation in Cincinnati.

Mae Kettler, former new number clerk at the Prospect office, has been promoted to supervisor.

Since June the gold leaf figures on the front window of the commercial department at Indianapolis have read "30,000." This is the number of Bell telephones in Indianapolis—a number constantly growing.

Miss Redmond, secretary to District Commercial Manager Hill, has returned from her vacation, much to the relief of Assistant Manager Watson, who has been "on the run" for two weeks.

The latest "dart" victim is Hazel McGee, of the commercial department. No date is set. The other party is Harry Schroeder, township trustee.

Ethel Wells of the commercial department and Harvey Hicks of the commercial department of the Chicago Telephone Company are expected to launch their matrimonial barque in the near future.

The Stenotype Company, Lemcke Annex, has installed a private branch exchange of one trunk and five terminals. This company located in Indianapolis as a result of the Mars Hill enterprise.

Northern District

Margaret Strain and Nellie Smith, veteran Crawfordsville operators, were away on vacation during June.

Mabel Hamilton, clerk in the Crawfordsville commercial department, has resigned.

A joint 10-A Western Union office was opened at Culver on July 1. W. H. Dalrymple, our manager, will also represent the Western Union. This joint office has proven very popular with cottagers around Lake Maxinkuckee.

James W. Sale, general manager of the United Telephone Company, of Bluffton, resigned July 1st to identify himself with other



MALE EMPLOYEES AT BEDFORD, IND.

Upper row, left to right: H. M. Guthrie, chief inspector; W. F. Brown, repairman; Floyd Chowning, lineman; N. E. Chambers, lineman; George Chambers, installer; Oscar Holland, lineman.

Lower row, left to right: H. D. Cornelius, lineman; Emory Love, collector; Harry Griggs, lineman; O. L. Cobb, wire chief; P. S. Higman, manager.

business, and has been succeeded by W. A. Patton, who was formerly the auditor of the United company.

Effective July 1st the joint Western Union office at Montpelier was changed from a service charge basis to a flat supervision charge basis, and the United Telephone Company will, under this arrangement, use a part of the Morse operator's time on telephone work, the remainder of the time being devoted to Western Union matters. Hartford City will be the day relay point when the Morse operator may be off duty, and Muncie will act as a night relay office for Montpelier.

On July 6th and 7th D. H. Whitham, representing the telephone company, and Mr. Ullory, representing the Western Union Telegraph Company, visited Culver in connection with the new joint office. They were both sorry that business kept them from a spin on the lake.

Plans are being prepared for a new building and new exchange at Peru, Ind., when the two plants will be consolidated. The Central Union recently bought out the Home company at Peru. Both plants are now being operated as one by means of a trunking system, but the results of this have not been satisfactory, and the operators have come in for a great deal of undeserved criticism from the subscribers. As soon as the new exchange is completed Peru will have one of the most modern systems in the country.

Arrangements have been made by the Citizens' Telephone Company, of Kokomo, to handle all collections for the Western Union Telegraph Company and the public may now telephone telegrams and have them charged on their toll bills the same as at the regular Central Union exchange. General Manager W. N. Turner of the Citizens' Company reports that it is working nicely.

General Manager W. A. Patton of the United Telephone Company has arranged to start collections for the Western Union at Bluffton, Hartford City and Marion as of July 1st.

A copper circuit is to be strung between Indianapolis and Anderson by the plant department and a phantom cut in under a recently approved estimate. The plant department is also cutting in a new phantom circuit between Anderson and Muncie on circuits purchased from the Delaware and Madison Counties Telephone Company. These circuits will afford considerable relief in handling the heavy traffic over these groups.

The city council of South Bend recently passed an ordinance extending the under-

When you want a Lock
you want the best.

EAGLE LOCK CO.

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories

TERRYVILLE, CONN.

Warehouses

NEW YORK
CHICAGO
PHILADELPHIA

"Always
Reliable"

**B. Kerosene
Furnace**

Economical,
Safe,
Durable
All Seams
Fused, Not
Soldered.

Patented
Oct. 26, 1909—
Nov. 15, 1910.
Other Patents
Pending.

Manufactured by
**OTTO BERNZ, NEWARK,
N. J.**

YOU'RE WASTING TIME

If You Haven't Started Using

FRANKEL'S TEST CLIPS

No peeling the wires. Permanent, positive connection every time and no damaged wires to repair.



No. 2521	Each
Doz. lots	20c
100 "	12½
500 "	11
	10

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY

Poles

FROM THE

Stump

TO THE

Line

Largest Stocks

Finest Quality

Promptest Shipments

Yards from Maine
to Washington

National Pole Company

Escanaba, Michigan

Even the Bell Wires
Were Placed With



KLEIN Linemen's Tools

SINCE 1857 IS A LONG
TIME BUT SINCE THEN
KLEIN TOOLS HAVE
WIRED THE EARTH

YOUR interests require that you become familiar with our house, our product and our ways of satisfactorily satisfying any demand of the electrician, troubleman, lineman, construction man, superintendent or manager.

Our catalogue is of pertinent value to you. Write for it.

You can buy the product from many dealers and all electrical supply houses and if you do not find what you want write us direct.

MATHIAS KLEIN & SONS

562 W. Van Buren Street
Chicago, Ill., U. S. A.
Harrison 2047

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

ground limits to points beyond where the plant department is engaged in work under an estimate, involving a large amount of construction and reconstruction. This has made necessary a complete rearrangement and revision of the present estimate, and will mean the outlay of a large sum to put the aerial plant underground within the prescribed limits.

A. B. Chafee, toll wire chief at Shelbyville, is back on the job after being laid up for more than a month on account of a bad fall received on May 30th, while touring the southern part of the state on a motorcycle with John D. Norwald. The latter was very fortunate, receiving but a few scratches, while Mr. Chafee received a bad cut on his head and a bruised hip.

B. B. Earley, manager at Shelbyville, left on July 13th for Lake Maxinkuckee for a two weeks' outing.

A very delightful picnic was held by a number of the Shelbyville operators on Flat Rock river July 13th. Besides the good things to eat, there was boating and swimming, and a general good time was enjoyed.

Anna Riley, night toll operator at Shelbyville, returned July 15th from Pelican Lake, Wis. Miss Riley had been away for a month.

The centralized accounting system was put into effect at the Shelbyville and North Vernon exchanges July 1.

The plant department has recently received notice of approval of the following work:

Muncie, Ind.: Installation of additional facilities and retirement of duplicate plant purchased. Estimated cost, \$20,000.

Elwood, Ind.: Installation of additional facilities and retirement of duplicate plant purchased. Estimated cost, \$5,600.

Elwood-Tipton, Ind.: Installation of an additional phantom circuit and one new No. 12 copper metallic circuit.

Indianapolis-Anderson, Ind.: Installation of one additional phantom circuit and one new No. 12 copper metallic circuit. Within the city limits of Indianapolis the conditions along this lead have been very bad, due to the fact that our lead is in close proximity to a 4,100-volt A. C. power circuit, which leads to the Army Post. This condition will be eliminated in connection with this estimate.

Auburn-Waterloo, Ind.: Installation of one new No. 12 copper metallic circuit. This circuit is being erected as part of a rather extensive plan in which the A. T. & T. Co.

will utilize spare circuits in the Central Union Company's plant, thus saving extensive construction work. The erection of this six miles of circuit will make it possible to furnish the A. T. & T. Company a circuit through from Wabash to Auburn.

Southern District

W. E. Lucas, commercial agent at Terre Haute, and Goldie Cook, clerk in the manager's office, were married during June. They will reside in Terre Haute.

Alta Shuttleworth, for several years chief operator at Terre Haute, asked for a two months' leave of absence for a trip to the Pacific Coast. It is suspected that Miss Shuttleworth didn't tell all she knew before she left, for immediately upon her arrival in California she was married to an old sweetheart of former days. We do not know his name, but we congratulate him. He is a lucky man.

Manager G. W. Dyke at Brooklyn has been transferred to Washington as joint manager succeeding F. J. Rowe, resigned.

I. N. Crawford, former manager of the Daviess County Home Telephone Company of Washington, who was retained there as special agent, has been appointed chief clerk to the manager at Terre Haute, succeeding F. H. Kissling, transferred to the position of manager.

Mattie Harms has been appointed chief operator at Terre Haute, succeeding Alta Shuttleworth.

Maude Morrissy has taken the position of toll billing clerk at Terre Haute, succeeding Goldie Cook, resigned.

District Plant Chief E. L. Hamlin is progressing nicely with repairs made necessary by the flood and storm damages. He is making it a special point to get through with this work as quickly and economically as possible, at the same time without interfering with the regular work of the plant department.

Several very complimentary remarks have been made to District Commercial Manager Wampler recently in regard to the splendid service which is being given at a number of our exchanges during the exceptionally hot weather. It is gratifying when business men appreciate the fact that while the vacation period is on that the telephone girl is ever on the job helping to make vacation better.

A special interest is being taken in the supplements to the BELL TELEPHONE NEWS, and Plant Chief Hamlin is preparing ques-

tions to be given to the plant people in his district, after which he will give them a week to prepare their answers in writing, feeling that written answers will be more beneficial than if they were handled orally.

Foreman Thomas and his gang have been engaged for some months past in heavy toll line reconstruction, involving new facilities between Indianapolis, Bedford, Spencer, Linton and Vincennes.

A new toll board was placed in service on July 16th at New Castle and at the same time a new toll circuit layout was placed in effect. New Castle is now the checking center for Henry county, including Lewisville, which is now tributary to New Castle.

The plant department is about to complete the construction of two copper circuits with phantom between Frankfort and Lebanon.

The plant department has about completed the work between Indianapolis and Bedford. Four additional circuits have been provided between Indianapolis and Spencer, together with additional circuits between Spencer and Bedford, and a rearrangement of circuits south of Spencer. This new layout provides additional direct circuits from Indianapolis to Bloomington and French Lick.

Work has been started rearranging the circuits north of Washington, in Daviess county, and it is expected that the construction of an additional copper circuit between Washington and Petersburg will be started soon.

Work has just been started on an additional phantom circuit between Terre Haute and Hillsdale, Ind., and an additional copper circuit, with phantom, between Crawfordsville and Rockville. This is part of a plan for the rearrangement of circuits in this territory.

The plant department has recently completed the following work:

Bedford, Ind.—Additional poles, wire and cable in connection with combining the plants of the Central Union and the Bedford Home Telephone Company.

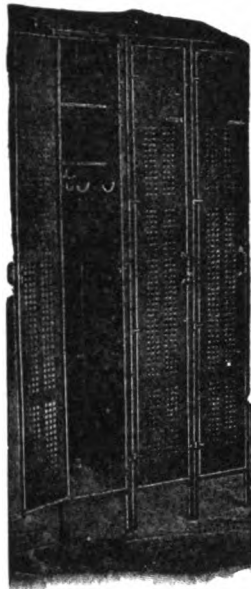
Linton-Terre Haute, Ind.—Reconstruction of pole line and installation of one phantom circuit and one new No. 12 copper metallic circuit.

Terre Haute, Ind.—All repair work in this city has been completed. Damage was caused by the cyclone of March 23rd and the flood of March 25th. The cyclone of March 23rd completely wiped out the south end of the cable plant, which involved the replacement of about 6,500 feet of cable.

Partridge & Anderson
Designers Engravers
Electrotypers Stereotypers
ENGRAVINGS IN THIS PUBLICATION
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
AUTOMATIC 31-757 31-758
100-16 N. Fifth Ave. Chicago

ELECTROSE
TRADE MARK
INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS

LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
66-72 Washington St. BROOKLYN, N. Y.
66-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

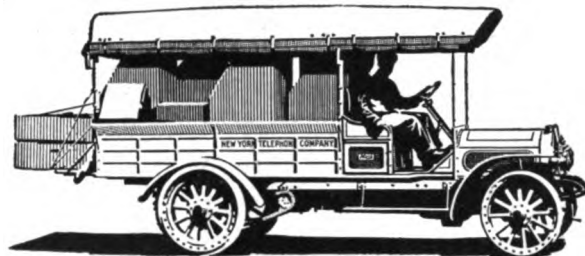
These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.



The Bell Telephone Company's Philadelphia plant uses one of our 1½-ton trucks to supply stations within 25 miles.

The saving over express delivery is 74.3%.
The saving over freight delivery is 59.7%.

International Motor Trucks

Proved by Years of Successful Service

Mack 12 years in use **Saurer** 18 years in use **Hewitt** 10 years in use

The continued efficiency of our trucks in all kinds of service is proved by records repeated year after year during 10, 12 and 18 years of service.

We supply a proved truck for every service.

Nine sizes—capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½ and 10 tons.

Bodies for every transportation service.

Have you any delivery problems? We place 18 years' accumulated experience at your service without obligations.

International Motor Company

General Offices: Broadway and 57th Street

Works: Allentown, Pa.; Plainfield, N. J.

Branches and Service Stations in Chicago, Cleveland, Cincinnati, Kansas City—All Large Cities.

DURABILITY—ECONOMY—SAFETY

WHEN BUYING MATERIAL THESE FEATURES ARE ALWAYS CONSIDERED

WE HAVE COMBINED THEM IN THE MANUFACTURE OF

**ELECTRICAL
CONSTRUCTION
SUPPLIES**



INSULATION BRACKETS

INSULATION BREAK-ARMS

INSULATION PINS

CROSS-ARM SUPPORTS

FEEDER ARMS

**CONDUIT FRAMES AND
COVERS**



MALLEABLE AND CAST IRON PIPE FITTINGS

THE SIGN



OF QUALITY

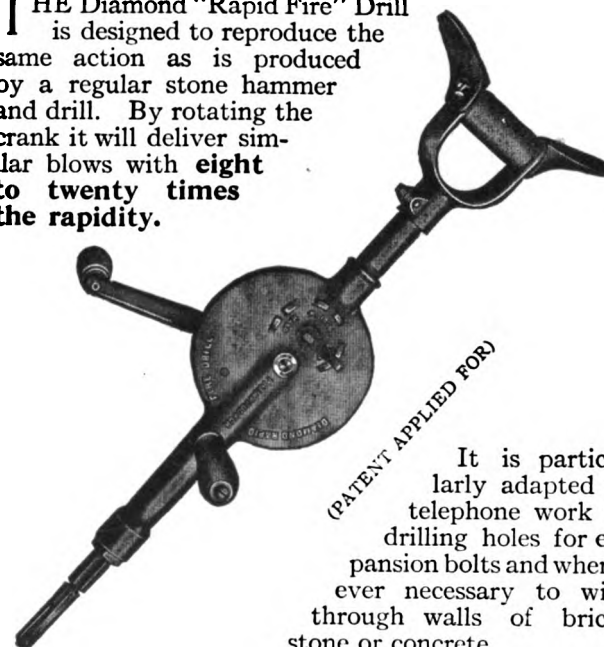
**ILLINOIS MALLEABLE IRON CO.
CHICAGO, ILLINOIS**

Diamond "Rapid Fire" Drill

(PATENT APPLIED FOR)

**For Economically DRILLING HOLES IN BRICK, STONE
OR CONCRETE**

THE Diamond "Rapid Fire" Drill is designed to reproduce the same action as is produced by a regular stone hammer and drill. By rotating the crank it will deliver similar blows with **eight to twenty times** the rapidity.



(PATENT APPLIED FOR)
It is particularly adapted to telephone work in drilling holes for expansion bolts and wherever necessary to wire through walls of brick, stone or concrete.

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 West Street, Corner Cedar

New York



Symbols of Protection

Ancient Egyptians carved over their doorways and upon their temple walls the symbol of supernatural protection; a winged disk. It typified the light and power of the sun, brought down from on high by the wings of a bird.

Mediaeval Europe, in a more practical manner, sought protection behind the solid masonry of castle walls.

In America we have approached the ideal of the Egyptians. Franklin drew electricity from the clouds and Bell harnessed it to the telephone.

Today the telephone is a means of protection more potent than the sun disk fetish and more practical than castle walls.

The Bell System has carried the telephone wires everywhere through-



out the land, so that all the people are bound together for the safety and freedom of each.

This telephone protection, with electric speed, reaches the most isolated homes. Such ease of communication makes us a homogeneous people and thus fosters and protects our national ideals and political rights.



**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

GENERAL LIBRARY
SEP 1 1913
UNIV. OF MICH.

BELL TELEPHONE NEWS



Vol. 3

September, 1913

No. 2

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

AUGUST 1, 1913

<u>STATES</u>	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	484,534	232,938	717,472
INDIANA	85,049	178,533	263,582
OHIO	169,412	173,147	342,559
MICHIGAN	198,784	58,984	257,768
WISCONSIN	<u>130,858</u>	<u>109,839</u>	<u>240,697</u>
	1,068,637	753,441	1,822,078

BELL · TELEPHONE · NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., SEPTEMBER, 1913

Number 2

Naval Pageant and Water Carnival at Chicago Celebrating Victory on Lake Erie

Chicago Telephone Company Called Upon to Supply Special Service of Unique Character For Motor Boat Races.

Since the development of Grant Park, having as it does a natural amphitheatre of considerable size and lying along the lake front near the center of Chicago, a variety of contests, exhibitions and celebrations are held here which had previously been impossible in any of our inland cities.

In the summer of 1910 the United States army encampment was held in this park. There were various exhibitions, drills and maneuvers and athletic contests, such as wall scaling, the whole ending with a sham infantry battle.

In 1911 was the International Aviation Meet, where the best aviators of this country and Europe competed for prizes and set several records. In 1912 was the Water Carnival. From June 26th to July 6th, 1913, there were the Olympic Games, in

which amateur athletes from all over the country competed for places in the International Games to be held at Berlin in 1916. The principal event of the present summer, however, was the Water Carnival held from August 16th to 24th, to celebrate the centennial of Commodore Perry's victory over the English fleet on Lake Erie, September 10, 1813.

Our first photograph shows a view of the north half of the Chicago harbor with a bit of the shore. Near the edge of the lake may be seen the grand stand and the tents of the Illinois National Guard. Within the harbor itself are all sorts of craft: government boats, several private yachts and a number of motor boats. Beyond the breakwater may be seen the remainder of the fleet of government boats which had come to Chicago



BIRD'S-EYE VIEW OF CHICAGO LAKE FRONT AT TIME OF WATER CARNIVAL.

as an escort to Commodore Perry's old flagship *Niagara*.

In order that such undertakings may be kept in step with the rapid progress of our present day it is necessary that the promoters and organizers arrange and prepare for telephone service to meet the demands of the public who attend, the press which supplies the news to the multitude who cannot attend, such emergency service as fire, police and medical attendance, and such special service as the occasion may require. Such service is, of course, always of a more or less unusual character and the telephone company is called upon to devise and install various pieces of equipment suited to whatever special uses the occasion may require.

The Chicago Telephone Company has a cable, along the wall of the Illinois Central Railroad, which terminates at a point just back of the Art Institute on Michigan avenue, east to Adams street, as the service is usually required at or near the grand stand erected for these various exhibitions and as no permanent pole lines are allowed in the park, it is necessary to provide some temporary construction by which the required conductors may be carried from the permanent cable above referred to the point where service is to be given. For the aviation meet, two years ago, the conductors had to be put underground to be out of the way of the machines. An ordinary farm plow was secured, four horses attached to it, a large furrow made across the grounds and the cable buried in this furrow. At the end of the meet the cable was simple pulled out of the ground, reeled up and returned to the store room.

For the Water Carnival in 1912 a ten-pair cable was extended from the lake front to the government life saving station, a distance across the water of 1,600 feet. For the Olympic Games in the



LEROY B. BOYLAN.

Of Chicago Plant Department, Who Developed Boat Timing Device.

Sixteen of the terminals installed on the switchboard were located in convenient places in the grand stand, at the Naval Reserve quarters, at the Chicago Yacht Club, and at the judges' stand. One other was installed on a scow located about 400 feet east of the judges' stand. The connection to this telephone was made by means of a No. 17 twisted-pair wire weighted and sunk, in order not to interfere with any passing boats. The wire to this telephone was so arranged that it could be taken off the barge each evening and brought to shore, the wire being coiled up on a small reel which was made for the purpose. The telephone itself was located in a terminal box in order to protect it from dampness. The use of No. 17 twisted-pair wire in this case demonstrates the fact that a common-battery line can be worked successfully when the wire is submerged even for a considerable length of time.

Probably the most interesting special equipment, however, was that devised by L. B. Boylan for timing speed boats. With the great interest centering upon the power boat races, it was necessary that absolutely accurate timing be kept as world's records were to be established. James A. Pugh, vice commodore of the Associated Yacht and Power Boat Clubs of America, anticipating, in April, 1913, the need of an accurate timing device, requested the telephone company to devise what might be termed a portable private line that could be used for timing in either the inner or outer harbor, the same to be so arranged that time could be taken for quarter or half mile dashes or for a full mile straight away run. The methods of timing used in the past have not been entirely satisfactory. It was done by having a steam whistle at the starting point and another at the finish. When a boat passed the starter he blew his whistle and started his watch. The steam rising from the whistle notified the man at the finishing point that the race was begun and he started his

watch. When the boat reached the end of the course the man there stopped his watch and at the same time blew his whistle. This worked fairly well, as the loss of time between the start and finish as registered by the man's watch at the finish was compensated by practically the same loss as registered by the watch of the man on the starting line. There was, of course, more or less variation in the results of the various timers, and it was this variation that yachtsmen were desirous of eliminating.

The device used this year consisted of a hose cart with approximately 6,100 feet of No. 17 copper steel twisted-pair wire on it. This wire is in eight different pieces requiring only seven splices to complete a length of over one mile. The splices are three-wire splices soldered and taped with two layers of rubber tape and one of friction tape. The tensile strength of the copper steel wire is between 150 and 200 pounds per strand, and great care was taken in making and soldering these splices to lay them in such a way that an equal strain would come on both wires at these splices, in order to maintain the full tensile strength of the wire.

There are two portable sets, Nos. 1 and 2. The No. 1 set is to be used at the reel end of the line and the No. 2 set at the further end. These sets each contain two local-battery circuits and are wired with electric light cord in order to keep them as nearly waterproof as possible. The local battery sets are wired to No. 99 jacks to which are connected two breastplate transmitters and receivers by means of two No. 137 plugs. Each local-battery circuit is separate and distinct, and failure of one circuit would still leave the other circuit in operation. The portable sets are so wired that a reversal of the No. 137 plugs in the jacks will make no difference in talking.

The inside end of the wire on the hose cart terminates in two places, on a round jack with a metal cover and on two binding posts with winged nuts. In both boxes the line wires terminate in jacks as on the hose cart. On box No. 1 there



"DISTURBER NO. 3."

Commodore Pugh's Mahogany Speed Boat.

early part of the present summer a temporary pole line was erected carrying an aerial cable to the grand stand. Telephone booths were erected at a number of places under the grand stand, where nickel pre-payment stations were installed. Service was also provided for the newspapers, police department and officers of the contests. Photograph No. 2 shows the interior of the police tent with the telephone equipment provided.

For the Water Carnival also special service had to be provided. For the convenience of the managers, judges and other officials of the Water Carnival, a No. 30 private branch exchange switchboard containing two trunks and seventeen terminals was installed. There were also five public nickel telephones located in booths for the general use of the public.



POLICE TENT, CHICAGO WATER CARNIVAL.

Showing arrangement of telephone apparatus.

is a pair of binding posts so that a connection may be made to the wire on the hose cart by means of a temporary jumper should the other connection be broken by some one turning the reel on the hose cart while the sets are in operation.

When the wire is removed from the reel the loose end is fastened to some stationary object as near as possible to where box No. 2 is used, leaving the box at this point. Then the hose cart is drawn forward at an even pace to a point where the other set is to be used.

At each end of the course is a device consisting of two thin round disks, each with a narrow vertical slot. Through these two slots the man sights the boat as it crosses the line at the beginning and end of the course.

With the wire laid out and the timers in position with the plugs inserted in the jacks, all is in readiness to make an official timing. The boat is now maneuvering, the starter is watching, and as the boat comes down the course he calls out in his transmitter "Stand by, the boat is coming," then all four timers are in readiness to start their watches and, as the boat passes the starter's sighting apparatus, he calls "Now," which is the signal for all four timers to start their watches. The man at the finish is now ready at his sight and as he sees it coming he calls out "Stand by, the boat is coming," and immediately watches through his sighting apparatus and, as the boat passes the line, he cries "Here," which is the signal for all four timers to stop their watches.

The result of this timing was practically perfection, as it was very seldom that there were any variations and when a variation did occur it was only a fifth of a second and then in most cases three watches out of the four were together.

Commodore James A. Pugh says that "It is a pippin and the best timing device in the United States, and the first one to take time for a boat making over fifty miles an hour." Lieutenant A. J. James, U. S. N., says that "It works as smooth as velvet."

All of the other timers and judges were equally satisfied with the apparatus and all speak a good word for it. Thus Chicago has stepped forward with a new "Made-in-Chicago" article.

Photograph No. 3 shows the hose cart, local battery box No. 1 and one pair of targets, with the timers in their proper positions. Photograph No. 4 shows Commodore Pugh's boat with the Commodore at the wheel. This boat, to landsmen at least, is a very remarkable bit of construction. It is forty feet long, the hull being made of mahogany five-thirty-seconds of an inch thick. Even the chips have to be cleared out of the course, because, at the rate the boat travels, they would pierce the hull like paper if it should strike them. The boat is equipped with two twelve-cylinder engines, one on either side, and attains a speed of fifty miles per hour.

The Naval Pageant afforded many daring and interesting water feats, such as the River Marathon swimming race, shell races, canoe races, tilting, fireworks, attack of landing party on Chicago, ascents of hydro-aeroplanes with parachute drops, exhibitions by the United States Naval Apprentice seamen from Lake Bluff, Chicago fire boats, United States life saving crews, etc.

The central feature of the whole affair was the naval sham battle reproducing that between the fleet of Commodore Perry and the English fleet on Lake Erie one hundred years ago.

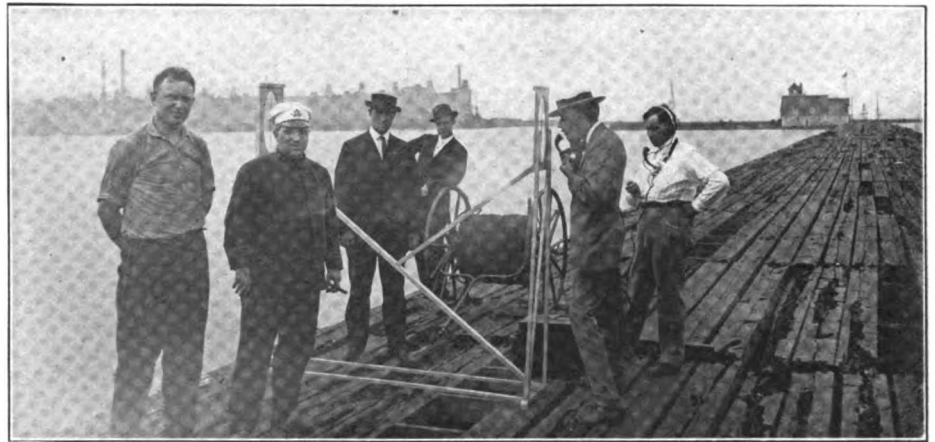
The action starts when the British ships come into view in the breakwater

to the north of the grand stand, and some distance away. The American squadron comes onto the scene of the battle from the south. As the British fleet is sighted, Commodore Perry, on board the *Lawrence*, hoists his famous flag, "Don't give up the ship," and the crews of all the American ships cheer. Perry forms his ships in line of battle and bears up to the enemy. Preparations for action are noticed on the American ships. The shrill pipings of boatswains' whistles summoning the men to their posts are heard and the gunners are noticed stationed at the guns with lighted torches. As the enemy's flagship *Detroit* draws nearer she opens fire on the American fleet and immediately all the British ships begin to fire at long range. Not a shot

of his application, and at any time thereafter continuously in said service for the period of five years. If in the service prior to 1891, then continuous service is not essential.

The executive committee is empowered to enroll any person who in its opinion shall have rendered service beneficial to the telephone interests prior to the year 1891.

Applicants for membership should apply by letter to the secretary, 15 Dey street, New York, or to W. J. Maiden, corresponding secretary, 212 West Washington street, Chicago, giving the date as near as possible at which they first became connected or associated with the telephone industry as previously stated, and such other details connected with



TELEPHONIC BOAT TIMING DEVICE.
In Operation at Chicago Water Carnival.

is returned for some time by the American fleet and the *Lawrence* sustains alone the bombardment of all the enemy's ships. Very soon the *Lawrence* opens fire, together with the other ships, and in a short time the *Lawrence* is practically disabled and Perry and his officers fire the last gun that remains in place. Perry orders away a small boat, and with his flag wrapped around him, is rowed to the *Niagara* reproducing this famous episode of the original battle. As soon as he hoists his flag on the *Niagara* Yarnell lowers the flag of the *Lawrence*. The *Niagara* sets sail for the British squadron, and, breaking through their line with deadly fire, turns and makes a complete circuit of the British fleet. The other American ships arrive in time to see the British strike their colors. Perry and his officers again return to the *Lawrence*, where the surrender of the British commander is enacted and the scene closes with Perry dictating his famous message: "We have met the enemy, and they are ours; two ships, two brigs, one schooner, and one sloop."

Telephone Pioneers of America

As the time draws near for the third annual meeting of the Telephone Pioneers of America, which is to be held in Chicago beginning October 16th, interest in the association naturally increases among the members and prospective members in the Middle West.

A person to be eligible for membership in this association must have been engaged in the promotion of, or employed in the telephone business or its associated interests (excepting the Western Union Company, which has an association of its own) twenty-one years prior to the date

employment as possible.

The applicant's letter of application should be accompanied by five dollars covering first year's initiation fees and dues and a recent photograph. The application must be endorsed by two members of the Telephone Pioneers' Association.

The applications are considered by the membership committee and recommended to the executive committee for approval and enrollment.

The dues after the first year are two dollars per annum. The membership now numbers about 1,100.

Upon enrollment each applicant is furnished with the proceedings of the 1912 convention and an engraved certificate of membership signed by the president and the secretary of the association.

Complaint Bureau Organized

The complaint bureau, provided for in the recent ordinance establishing new rates for the Chicago Telephone Company, has been organized by the appointment of Montague Ferry as head of the bureau.

Mr. Ferry is a consulting engineer with twelve years' experience in telephone work, having been connected with the New York Telephone Company, Chicago Telephone Company, Illinois Tunnel Company, San Francisco Home Telephone Company and Quincy (Ill.) Home Telephone Company. He was in the engineering department of the Chicago Telephone Company in 1908, leaving the service after a short time to go to San Francisco.

Mr. Ferry is a graduate of Yale and the Massachusetts Institute of Technology.

Detroit Picnic

Reported By A. W. Lambert, Jr.

The third annual outing of the Michigan State Telephone Company's Detroit employees was held August 9th at Bob-Lo Island, twenty miles below Detroit. The occasion was under the auspices of the Telephone Society of Michigan and the day was a complete success.

With the exception of sufficient operators, plant men and commercial employees to keep the service going, the company shut up shop, declared an illegal holiday and the employees set sail on the good ship *Ste. Claire*, with lunch baskets, baseball bats and various picnic paraphernalia. A picnic for operators from several neighboring towns augmented the Detroit crowd by a hundred or so. W. A. Spencer, traffic superintendent, assisted by General Manager von Schlegell, distributed blue bell badges and the two, assisted by Commercial Superintendent Welch, took general charge of the girls, to see, first that they had a good time and second, particularly, that they had a good lunch.

The trip to and from the island was an important feature of the outing. There was dancing for those who cared for such strenuous work on a picnic day and cool lounging decks for those who preferred calm to excitement. A card game was discovered on the head of a barrel in a secluded corner and when the "raid" was made Alger Cook and Verne Smith were said to be somewhat ahead of the game at the expense of Dell Humiston and Lee Thomas.

At 1 o'clock the various games and athletic contests began. These events proved very interesting to the spectators. The boys' race was won by Carl Hall. The race for ladies of all ages was won by Miss Drean. One race was scheduled for young ladies, thirty years or over, but had to be called off as no entries were received. Frank Courthard proved the Nemesis of the fat men, with Jason Eastland a close second. This race proved a long drawn-out affair and had to be called on account of darkness; by that time the winner had reached the eighty-yard mark

and was still going. All indications pointed to the fact that he would have reached the original destination, one hundred yards, soon after midnight. The ball throwing contest for ladies was won by Mrs. McNaughton; Cora Weese was second, and for a long time looked the sure winner, but Mrs. McNaughton was seen to moisten her hand before throwing and everybody knew then that the contest was all over but the shouting. Miss Cardinal proved the best carpet-tacker in the crowd by driving five nails in a board and running twenty yards in a little over thirty seconds. The tug-of-war between the Linemen vs the Installers was won by the latter; it was a glorious contest until one of the linemen discov-

nails, five wire and one thumb, in the board before any of the rest. Lillian Drean, Grand, repeated in the fifty-yard dash for girls over eighteen, with Margaret McTague, of the school, second. Loretta McTague won the special race for teachers; Marion Cady, Hemlock, second. This Miss McTague was also entered in the above race, but was disqualified for overcoming the handicap of a tight skirt by trying to slide the last half of the distance on her arm. Miss Drean again repeated in the shoe race, with Mrs. Lind of the office, second. Miss Morrill, East, proved the fastest peanut racer, with Marie Enz a close second as a gubernatorial artiste. Mildred Roberts, North, proved her ability at running twenty-five



A LITTLE LUNCH PARTY AT BOB-LO.

A group of operators, some of the instructors in the operators' school, and a few appreciative guests are here seen. Starting at the left end on the other side of the table, and working around it to the same position, the names are: Nellie Turberville, instructor; Mary Reynolds, instructor; Mrs. Emily Lind, traffic; Mrs. Lena Smith, chief instructor of the operators' school; Bernita Stump, instructor; Arthur von Schlegell, general manager, Michigan State Telephone Company; Sarah McKinnon, instructor; Raymond Storm, commercial; Grace Packard, commercial; David H. Dodge, commercial; W. E. Spencer, traffic superintendent; Marian Cady, instructor; G. M. Welch, commercial superintendent (who moved at the wrong moment); Florence Weideroeder, traffic; Hilda Lind, commercial; Elizabeth Smith, traffic; Loretta McTague, instructor; Margaret McTague, instructor; Soul Fenner, instructor; Myrtle Zinc, instructor (whose nephew reclines in the lap of Miss Fenner); Evelyn Fell, instructor; Rose Boyle, instructor; Mercedes Barry, traffic, and Raymond Ormond, traffic. In case of any misunderstanding about the contents of the glasses being held up in order to wish health and prosperity to the Bell Telephone News, it is well to state right here that said contents consisted of GIN-GER ALE.



CHAMPION SWIMMERS AT MICHIGAN PICNIC.

ered that fourteen of them had been trying to pull thirty-five installers; the judges, therefore, decided the prize, a box of cigars, should be divided between the two factions and the judges.

A number of special events for the operators were run off later in the afternoon. Helen Salatka of Main exchange won the egg race, with Bessie Kobe, Ridge, second. Grace Packard of the commercial department succeeded in throwing the baseball a little further than Mary Rhinas of Ridge. Amy Robinson of Main won the race for girls under seventeen, from a large field, with Miss Kobe, Ridge, second.

While preparing for the potato race Mr. Glass claimed he "laid all the potatoes in their proper places." Several of the spectators were inclined to doubt Mr. Glass' veracity and said they might have believed him had the potatoes been eggs. This race was won by Miss Roberts, North, with Millie Enz, of Grand, second.

Marie Enz, of the famous Enz sisters, won the nail driving contest, driving six

yards and threading a needle with Miss McTague, of sliding fame, second.

Two volley-ball contests were held between various teams. In the morning game the team from the Main exchange successfully defended the title of world champions against the Allcomers, from Mt. Clemens, Hemlock and Scrubs, to the tune of 30 to 28. In the afternoon game, the Hemlock-Grand team challenged anybody and won, 30 to 18. In each case a large box of candy went to the winners.

Two baseball games were played during the afternoon. The famous Blue Bell team of the Michigan State Telephone Company, cleaned up the team for the Packard Automobile Company, 15 to 5. After the big game the plant department settled a long drawnout controversy as to superiority over the commercial men. The score of this game was something like 9 to 4.

W. A. James, manager at Mt. Clemens, brought, as usual, a fine contingent of healthy, fun-loving girls from the traffic side of his exchange.

Mutual Relations and Interests of The Bell System and the Public

Statement of the American Telephone and Telegraph Company.

The suit brought by the United States questioning the purchase of certain telephone properties in the northwest, as well as the pending Interstate Commerce Commission telephone investigation, have caused many inquiries. Without taking up anything going to the merits of these proceedings, it has seemed to us proper to state generally what has been our policy and purpose in the conduct of our business.

We have found, or thought that we had, that our interests were best served when the public interests were best served; and we believe that such success as we have had has been because our business has been conducted on these lines.

We believe that our company has an interest as vital as that of the public in the proper administration of the problems of electrical inter-communication. The success and prosperity of our company depend upon a solution of these problems which shall be sound from both the standpoint of the company and the public which it serves.

Following our own best judgment, supplemented by the best obtainable advice, we have endeavored to do what would best serve the public interest; wherever possible our plans have been disclosed to the public in advance, and what has been done in carrying them out has been along ordinary business lines, with the implied and generally with the expressed approval, authorization or consent of the municipal and state authorities directly interested. Our effort has been not only to obey the law, but to avoid everything which might even have the appearance of an attempt at evasion.

Our business methods and policy, and practically all of the details as to the transaction of our business, are matters of common knowledge and are, and for many years have been, well known to the

government. We will willingly furnish the government any additional information which is in our possession or under our control, and will cordially co-operate with it in obtaining such further information as it may require. Every possible assistance will be given by us to the courts in their efforts to determine whether our policy is or has been inimical to the public interest. We desire that anything wrong be corrected; we will voluntarily rectify any wrong that may be pointed out to us; and, so far as it may be determined that our policy or any act under it is against the public interest, we will promptly conform to such determination.

We believe that if each of our exchanges were made an independent unit and if each connecting line were put under a separate control, the effect upon the telephone service of the country would be a condition so intolerable that the public would refuse to submit to it and would immediately require such physical connection and common control of these various units as would amalgamate them into a single system. Physical connection in the case of telephone or telegraph does not mean transfer of messages from one line to the other. It means such a connection as will permit one person to have the actual possession of the particular line of communication from one end of it to the other and this can only be given efficiently by exchange systems and connecting lines under a common control; and that is what the Bell system is.

In this connection, and for general information, we will restate the policy which controlled the building up of the Bell system, and our belief as to what a telephone system should be, and what are its relations to the public.

We believe in and were the first to advocate state or government control and regulation of public utilities; that this control or regulation should be by permanent quasi-judicial bodies, acting after thorough investigation and governed by the equities of each case; and that this control or regulation, beyond requiring the greatest efficiency and economy, should not interfere with management or operation. We believe that these bodies, if they are to be permanent, effective and of public benefit, should be thoroughly representative; they should be of such character and should so conduct their investigations and deliberations as to command such respect from both the public and the corporations that both will without question accept their conclusions.

We believe that the public would in this way get all the advantages and avoid all the manifest disadvantages of public ownership.

We believe that centers of business and population exist for the convenience of the public as a whole, and that no such center can prosper without sufficient and efficient means of intercourse with other centers and tributary territories; that such means can only be afforded by prosperous utility and service companies and that fair rates are essential to prosperous companies. We do not believe that any public either desires or can obtain, nor

can any service or utility furnish, permanent and efficient service at less than cost, including capital charges. We believe that ultimately the public either directly or indirectly pays the losses involved in the efforts to furnish such service at less than its fair cost, either through the loss of the capital involved, the losses incident to poor service or the necessary increase in charges required to pay for duplication of capital.



A PAIR OF RUNNERS AT MICHIGAN PICNIC.



NAIL HAMMERERS AT MICHIGAN PICNIC.

We believe that the highest commercial value of the telephone service depends on its completeness—on the extent and comprehensiveness of the facilities for inter-communication, not only between individuals but between centers of population; that no isolated section can be considered independently of any other section or of the whole; that rates must be so adjusted as to make it possible to obtain the maximum development by making it possible for every one to be connected who will add to the value of the system, thus giving the greatest value to the greatest number; that the interdependence of the telephone service and the value of complete and universal inter-communication justify and require some services partly at the expense of the whole for the benefit of the whole.

We believe that this highest commercial value can only be attained by one system under one common control and that it cannot be given by independent systems unless they are operated under agreements which result in one common control and one common interest, in effect making them a single system.

We believe that rates should be so adjusted as to afford the company sufficient revenue to pay such wages and compensation as will secure the most efficient

service; to maintain the very highest and most advanced standards of plant and apparatus, to carry on such scientific and experimental research and inventions as to apparatus and methods as to insure the highest standards, and to carry to reserve and depreciation such amounts as will enable the company at any time to replace old plant and old methods with new plant and new methods as fast as they may be developed and found to be to the advantage of the service. We believe that in addition, such fair charges should be paid upon the investment in plant as will enable the company at any time to obtain money necessary to provide the plant required to meet the continuing demands of the public; and in order that waste and duplication of effort may be avoided and uniformity of purpose and common control be enforced, that there should be a centralized general administration in close communication with and having general authority over the whole on matters common to all or matters of general policy.

We believe that any surplus beyond that necessary to equalize dividends on a fair basis should be used by the company for the benefit of the public and should be inalienable for any other purpose, and should be either invested in revenue-earning plant until necessary to substitute plant which may become inadequate or obsolete, or should be used to make the service cheaper or better.

We believe that under proper governmental control and regulation the profits from promotion or operation allowed to be distributed should not be so large as to warrant or tempt complete duplication of plant and organization, with its duplication of its capital charges and its organization, operating, maintenance and depreciation expenses; and we do not believe that utilities giving at fair rates an efficient and sufficiently comprehensive universal service should be subject to limited competition, not giving such service. Competition which ignores the obligation to furnish a complete and comprehensive service is not competition, is not for the benefit of the public in that it does not reach the whole public interested.

If, therefore, complete duplication, with its dual exchange connection and dual bills for service, is a prerequisite to complete competition, government control and regulation cannot go hand in hand with competition.

We believe that the record of the Bell system will be accepted by the public as fully in accord with these declarations. Consistent adherence to this policy has given the public of the United States the best, most comprehensive and cheapest telephone service in the world and made the Bell standards the standards of all nations.

To remove any possible excuse for misapprehension on account of the many misleading statements which have been circulated as to the alleged unnecessary and overcapitalization and excessive charges of the Bell system, the following statistics are given. Except where stated, the figures are for the Bell system; that is, the American Telephone and Telegraph, and its associated companies:

The entire Bell system on June 30, 1913, had outstanding in the hands of the public obligations (i. e., notes, open accounts, bonds and shares) to the par value of \$776,000,000.

The book value of the total tangible assets, which is considerably less than their replacement value, amounted to \$960,000,000. Many appraisals of property included in these assets have been

made, and most of them under the direction of public authorities. In no case has the value as it stands on the books failed to be sustained, and in most cases it has been very largely exceeded.

The total dividends and interest paid during the year 1912 amounted to only 6.1 per cent. on the average of its outstanding obligations, and to less than 5 per cent. on the average value of its assets.

The actual cash which has been paid into the treasury of the American Telephone and Telegraph Company on account of the capital obligations now outstanding amounts to \$22,000,000 more than the par of such outstanding obligations.



WINNER OF FAT LADIES' RACE, MICHIGAN PICNIC.

The associated companies collected from the public and paid back in taxes over \$10,000,000 during the year 1912.

The steadily increasing necessities of the public not only for additional but for new telephone service can only be met by new construction, involving capital outlay. To meet these demands during the six and one-half years from 1907 to June, 1913, inclusive, the increase in telephone plant was as follows: Toll line wire increased from 1,460,000 miles to 2,242,000 miles; exchange wire increased from 6,000,000 miles to 13,000,000; the number of exchange stations increased from 2,730,000 to 5,200,000; the number of stations of independent companies connected with the Bell system increased from 343,000 to 2,620,000. The number of independent companies connected with the Bell system is about 25,000. The number of employees in the Bell system, not including the employees of connected companies, on December 31, 1912, was 141,000.

During this same period the number of shareholders of the American Telephone and Telegraph Company, not including either the associated or connected companies, increased from 17,000 to about 54,000. About 47,000 shareholders hold less than 100 shares each; 6,500 shareholders hold from 100 to 1,000 shares each; 347 shareholders hold from 1,000 to 5,000 shares each, while there are only sixteen shareholders of 5,000 shares or over in their own right. A majority of the shareholders are women.

American Telephone and Telegraph Co.,
THEO. N. VAIL, President.

Western Electric Outing

On July 19th the Western Electric Company, 6,000 strong, invaded Michigan City for their annual picnic. It took a fleet of boats—the *Theodore Roosevelt*, *United States*, *Holland* and *Pere Marquette*—loaded to their capacity to carry the picnickers over the lake.

The fact that a large part of the crowd was composed of employees who brought members of their families illustrated the confidence everyone had in the committees that engineered the affair. And there was good reason for such confidence, for the picnic from beginning to end was remarkably well planned and carried out. Throughout the day there was evidence of the fact that these annual picnics are becoming more and more attractive to Hawthorne employees and their friends.

Upon reaching Michigan City Signor Dante and his famous Western Electric band led the first arrivals, about 3,000 strong, from the *Roosevelt* to the grounds, where they soon scattered to find the varied and enjoyable forms of recreation.

During the day there were running races, swimming races, baseball games and other athletic contests open to the picnickers.

In addition to these contests there were many other attractions—roller coasters, bowling alleys, rapid-fire photograph galleries and all the other side attractions common to summer parks. The emancipation of the ladies by Governor Dunne was properly celebrated by a big suffragette parade by the girls of the cable plant. The women were again very much in evidence in their playground ball contests, which attracted crowds whenever a game was in progress.

The day was ideal and many sought the warm, wavy water in preference to other doings. Among the most interesting contests were the tub races, climbing the greased pole and a tilting match. The final athletic contest was a baseball game between those old rivals, the Western Electric and the Chicago Telephones, the result of which was a victory for Hawthorne.

As the boats were leaving for Chicago some jester discovered that there was still enough sand left for next year's outing, despite the amount brought aboard and dumped out of shoes that had room only for tired feet.

This outing was the third annual outing of the Western Electric employees, and when the time draws near for the next year's picnic the Western Electric "bunch" hope to entertain their fellow workers in the telephone field.

Michigan State Stock Issue

Stockholders of the Michigan State Telephone Company were offered the right to subscribe at par to new stock on or before August 20th, which will bring the capitalization of the company up to the authorized amount of \$10,000,000—\$6,000,000 common and \$4,000,000 preferred. There is at present \$3,500,000 common, which was entitled to purchase \$2,500,000 new common in the ratio of five shares of new for seven of old, and the \$2,285,000 existing preferred may subscribe to \$1,715,000 additional preferred at the rate of approximately three new shares for four old. Subscription privilege attached to stock of record July 16th.

Certificates for stock subscribed for will be issued as of October 1, 1913, but interest will be paid on subscriptions from receipt of payment to date of issue at the rate of six per cent.

"Made in Chicago" Window Display.

Following a plan established last year the Chicago Telephone Company contributed a liberal display to the annual "Made in Chicago" Exhibit.

The Telephone Company's display was exhibited in thirty-two drug store windows, practically all sections of Chicago being represented. The exhibit was designed and arrangements for the display were made by the Publicity Department.

The Chicago Company has the reputation of doing things of this kind in a thorough and effective way and in the present instance the expectations of the business men who promoted the "Made in Chicago" week were realized as usual. The telephone display attracted wide attention and favorable comment.

The Blue Bell Fraternity

Since the establishment of the Insurance and Pension Plan, there have been numerous requests for a badge or emblem which would identify the wearer as a member of the "family" and also indicate in an inconspicuous way the length of time covered by his membership.

The idea is an old one used in various forms by nearly every fraternal organization known—the member is proud of his affiliation and wants other members of the organization to know that he is "one." In the selection of the insignia there was but one idea—the Blue Bell—and it is, of course, natural that our "Trade Mark" with the addition of a bar across the bell indicating length of membership (a star for each period of

Telephone Time Accounting

Marshall Field and Company, Chicago, have installed a telephone service in their workrooms which, they believe, will establish an efficient system of cost accounting in that branch of their business.

A large number of garments come to the workrooms each day for alteration. To have employees make out separate time cards for each garment was found to be unsatisfactory. It involved a waste of time, and records obtained in this way were frequently inaccurate.

Details of the new system are described in the *Electrical Review and Western Electrician*. All garments receive a job number before they are sent to the workrooms. In the workrooms are enough telephones so that there is one within easy reach of each operative.

When the work of repairing or altering is started the operative takes the telephone receiver off the hook and says: "I am starting work on Job No. So-an-So." This time is recorded on a job ticket by means of a time stamp by a girl at the switchboard with which the telephone is connected. This operator has no other duties to perform, and these telephones have no connection with any other system in the building. When the repair or alteration has been completed the operative again takes up the receiver and says: "Job No. So-an-So is completed." Again the time is recorded by the switchboard operator. The elapsed time gives an accurate basis for computing the cost of the work done in altering or repairing the garment.

The innovation is expected to save many thousands of dollars.



DRUG STORE WINDOW DISPLAY "MADE IN CHICAGO" WEEK.

The character of the design is shown in the accompanying photograph of the display in one of the drug store windows. The design itself was conical in shape with a seal border on the outer end flush with the window pane. The sides were lined with blue and white silk ribbon in alternate stripes. At the inner end was a telephone desk set standing in a blue and white border bearing the lettering, "600,000,000 Conversations a Year Made in Chicago." The outer border was a combination seal for the Chicago Telephone Company and Western Electric Company, designed to show that the services of the two companies combined to produce the 600,000,000 conversations. Electric lights were so arranged as to illuminate the interior of the design.

Around the edges lining the glass blue cloth was draped, shutting off the view of everything else in the window, or section of window, occupied by the display.

The Publicity Department is prepared to furnish a limited number of these displays for use wherever they can be shown to advantage.

five years) should be unanimously adopted.

The Blue Bell sign is undoubtedly the most universally known trade mark in the world. In the small town, or the large city it stands not only for quick communication, but also for sociability and friendship. May the entrance of the "Blue Bell" button soon show to the world the large army of people who are glad to be known as members of the family, which is now one of the greatest fraternal insurance organizations in existence.

The supply department has received the first lot of buttons. They are attractive in appearance, are made of tenkarat gold and will be sold at cost (\$1 each) to any who may wish to secure them, and arrangements have been made so that an employee may exchange his button for one with an additional star, without cost, as soon as length of membership makes him eligible to the higher class. If demand warrants, the emblem will also be made up as a stick pin or hat pin.

Corrections—Bell News Supplements

Our attention has been called to discrepancies in the text of the April and May issues of the BELL TELEPHONE NEWS Educational Course Supplements. Holders of copies of these issues should correct them as follows:

April issue, page 20, second paragraph, "No. 69 protector mountings," should be changed to read, "No. 59 protector mountings."

April issue, page 17, fifth paragraph. The last word in this paragraph should be changed from "terminals" to "crossings."

May issue, page 16, last paragraph. The words "makes a double corner or" should be stricken out.

Newspaper Clippings

The attention of managers is called to the importance of forwarding newspaper clippings promptly to the Publicity Department at Chicago.

It is possible that in some places the newspapers are not being read on the day they are issued, or perhaps the clippings are being held so that several may be sent at the same time. These practices should be avoided and the clippings forwarded on the day they appear, even if there is only one.

When clippings contain no other writing except the name, place and date of the paper from which they are clipped they may be sent unsealed for one cent postage. Care should be taken to write the names and date plainly.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
 A. BURT, *Vice President*
 W. I. MIZNER, *Secretary*
 C. E. MOSLEY, *Treasurer*
 L. G. RICHARDSON, *General Counsel*
 B. S. GARVEY, *General Auditor*
 J. G. WRAY, *Chief Engineer*
 CLIFFORD ARRIK, *Manager Publicity Department*

H. F. HILL, *General Manager*,
 Chicago, Ill.
 E. A. REED, *General Manager*,
 Columbus, Ohio
 H. O. SEYMOUR, *General Manager*,
 Milwaukee, Wis.
 L. N. WHITNEY, *General Manager*,
 Indianapolis, Ind.
 A. VON SCHLEGEL, *General Manager*,
 Detroit, Mich.
 H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, *Editor*

BELL TELEPHONE BUILDING . . . CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

SEPTEMBER, 1913.

Illinois—500,000

If any one thing is more exhilarating than another to a Bell commercial man it is to watch the steady rise of station figures in the reports of his exchange. All of us, in all departments, may feel the same satisfaction in the steady progress of the states of our group toward the Bell aim, "Universal Service."

Just now attention is invited to the record of the State of Illinois. During the month of July the Chicago Telephone Company's stations in Illinois passed the 400,000 mark. The gain in the state, including the stations of the Central Union Telephone Company, brings the total on August 1st to 484,534.

The rate of gain since January 1, 1913, when the station figure for Illinois stood at 450,556, makes it seem practically certain that when business closes on the last day of the year Illinois will have 500,000 regular Bell telephones in service.

In the meantime the growth of connected stations has been steady and it would not be surprising if, at the same hour, the whole list of regular and connected telephones should number three-quarters of a million.

Voices from the Invisible

MR. ROBERT DONALD, editor of the *London Daily Chronicle*, and president of the Institute of Journalists, painted a striking picture of the newspaper of the future in his presidential address at the annual meeting of the institute at York.

MR. DONALD said if he were to attempt to forecast the future he would say that newspapers would be fewer in number. The tendency toward combination would increase and colossal circulations would continue to grow. He added:

"News will be collected by wireless telephones and a reporter will always have a portable telephone with him with which he will communicate with his paper without the trouble of going to a telephone. The wireless telephone messages will be delivered to the sub-editors in printed column form."

What time may bring forth in the realm of electricity is for no man to say, although it would be difficult for a telephone man to conceive of such a development as MR. DONALD suggests, as an actuality.

Since the birth of man his mind has been struggling with the attempt to hold converse with the invisible. The wireless telephone, if ever perfected, will practically realize this world-old wish. Fancy the outcome to yourself. You are walking along the street, or perhaps cruising along in your aeroplane. You suddenly take a notion to talk to your uncle in Aurora or your lawyer in the Loop. You pull a little instrument from your pocket, press a button or perhaps a combination of keys, place the instrument to your ear and from invisible space comes an answer to your voice. Perhaps your uncle is in Timbuctoo or Skagway. All the same, if you are able to carry enough battery power.

Let it again be understood that we do not pretend to scoff at the possibilities of the future, but the present state of development of the wireless telephone leaves considerable yet to be accomplished before a commercial service can be attempted. In

this connection we might observe that, although the flying machine is a fact, the railroads and steamship lines are still in business.

One Use for Two Systems

An ingenuous minded commentator on the general unfitness of things has made a suggestion that it would be a nice thing to have two telephones—one for regular service and the other for those who wish merely to visit and gossip. He says:

"Nothing will exasperate a man more than to call up some other man with whom he has urgent business only to find that the line is tied up by a couple of women who think it is necessary to tell each other how tired they are after ironing, or what hard luck they had baking cake, or how they are expecting company and must get busy and clean up a bit, or a lot of other equally frivolous stuff."

This is not a new complaint, and in fact, as *The Telephone Review* says, the problem is a real one. But the remedy proposed is not the solution. Why not try an individual line which gives exclusive use of the wire?

Party-line telephone service is as good as single-line service, save for one thing only. It is not exclusive. In every other respect it is equal to the highest grade of service which can be furnished. But the one drawback becomes serious to the busy subscriber when other parties on the line are inclined to monopolize its use.

The telephone has brought sharply to our understanding the fact that the frivolous conversation generally consumes more time than the serious one. This is a matter of small importance as far as ordinary, personal talk is concerned—indeed it might be said to have beneficial effects on our health and tempers. But the party-line telephone introduces a third person; one who is not interested in what we say and who seldom can appreciate the chatter which pleases us so highly.

Party line service is essential. The one, and only one, objection to it can be remedied by promoting a clearer understanding among the subscribers. The publicity departments are working along this line. Every Bell employe can add his quota of help.

Heat and Courtesy

No higher compliment to the efficiency and loyalty of our operating forces could have been paid than the tribute of a Youngstown, Ohio, editor who wondered how the girls could keep their tempers during the hot weather and the heavy telephone traffic resulting from it.

The telephone operator, in common with all humanity, "feels the heat." Every possible method is employed to make her working quarters as comfortable as possible, but in the weather which has prevailed in the middle western states during the past two months no amount of scientific ventilation or artificial cooling would have availed to make our exchanges pleasant places to work. There were no such places, anywhere.

But did this affect our service? Not at least in Youngstown, and we venture the assertion that among our thousands of girls few complained and fewer still allowed the heat to affect their treatment of their subscribers. And this, too, was at a time and under conditions in which the subscriber was prone to be least tolerant and was not restrained by any of the considerations which prompt the operator to be courteous.

The admirable self restraint shown by these girls is in part, no doubt, due to the careful training which they have undergone to fit them for their positions. To those who, without this training, have kept their tempers under the recent frying conditions a greater tribute is perhaps due. Like Mark Tapley, in Dickens' novel, we at last found ourselves in a position where it is really some credit to be jolly.

After all, it is just as well to be good natured in hot weather as well as in cold weather or moderate weather. And besides, frost will be along shortly.

Win the Field Meet!

Once more, on September 6th, Chicago Telephone Company athletes are to lock horns with the stalwarts from the Western Electric Company. This announcement is all we can print about the Annual Track and Field Meet, scheduled for that day, for *The News* will be on the press before the details are arranged.

While past history of these affairs offers little encouragement to the telephone boys, it is a well known phenomenon that history does not necessarily repeat itself in athletic matters. In short, the circumstance that the telephone team lost last year is not conclusive evidence that it will lose this year.

A great deal may be accomplished by good "rooting." Remember the date and place, September 6th, Saturday afternoon, on the athletic field at Hawthorne, and make your arrangements to be present with a Chicago pennant and a willing set of lungs. And if we should happen to lose then shout for the other fellow.

District and Division Collection Rating

JULY 1, 1913.

	Total to be collected during June.	June collections.	Unpaid July 1.	Pct. collected.	Pct. uncollected.	Stations.
1. Wis. Co., Appleton District.....	\$ 62,182	\$ 60,573	\$ 1,609	97.4	.1	26,851
2. Wis. Co., Madison District.....	37,854	36,299	1,555	95.9	.1	15,862
3. C. U. Co. (Indiana), Southern District.....	39,657	36,880	2,777	93.	.3	19,032
4. Wis. Co., Janesville District.....	10,200	9,329	871	91.4	.1	4,375
5. C. U. Co., Columbus District.....	52,165	47,584	4,581	91.2	.4	21,327
6.*Wis. Co., Milwaukee District.....	131,606	119,466	12,140	90.7	.5	60,591
7. C. U. Co., Centralia District.....	11,515	10,290	1,225	89.4	.4	5,068
8. C. U. Co., Toledo District.....	60,746	53,886	6,860	88.7	1.1	25,974
9.*Mich. Co., Marquette District.....	34,655	30,493	4,162	87.9	2.6	15,166
10. C. U. Co., La Salle District.....	5,860	5,047	813	86.1	.1	2,525
11. C. U. Co. (Indiana), Northern District.....	62,603	53,414	9,189	85.3	3.1	26,458
12. C. U. Co., Galesburg District.....	6,611	5,642	969	85.3	.1	3,395
13. C. U. Co., Champaign District.....	5,092	4,345	747	85.3	.5	2,301
14. C. U. Co., Quincy District.....	14,927	12,563	2,364	84.2	.5	6,050
15. Chicago Co., Chicago Heights District.....	7,279	6,098	1,181	83.7	.2	2,528
16. C. U. Co., Jacksonville District.....	6,767	5,653	1,114	83.5	.4	4,270
17. Wis. Co., Eau Claire District.....	35,992	29,782	6,210	82.7	.2	13,243
18. Chicago Co., Chicago District.....	1,365,088	1,127,144	237,944	82.5	.07	332,268
19. C. U. Co., Akron District.....	61,521	50,685	10,836	82.4	.7	23,357
20. Michigan Co., Detroit District.....	306,440	251,362	55,078	82.2	1.	80,517
21. C. U. Co., Chillicothe District.....	37,852	31,038	6,814	82.	.4	18,982
22. Chicago Co., Blue Island District.....	10,156	8,182	1,974	80.5	.17	3,333
23. C. U. Co., Peoria District.....	45,978	36,894	9,084	80.2	.2	15,738
24. Chicago Co., Woodstock District.....	10,644	8,522	2,122	80.	.24	3,480
25. C. U. Co., Alton District.....	6,423	5,112	1,311	79.6	.01	3,143
26.*Mich. Co., Grand Rapids District.....	87,163	68,943	18,220	79.	3.9	42,855
27. C. U. Co., Kankakee District.....	12,568	9,919	2,649	78.9	.3	5,797
28. C. U. Co., Paris District.....	2,518	1,974	544	78.4	.5	1,890
29. Chicago Co., LaGrange District.....	16,166	12,499	3,667	77.3	.02	5,019
30.*Michigan Co., Saginaw District.....	47,515	36,723	10,792	77.2	2.2	21,308
31. C. U. Co., Rock Island District.....	25,918	19,976	5,942	77.1	.3	10,049
32. Chicago Co., Elgin District.....	16,152	12,460	3,692	77.1	.34	6,032
33. C. U. Co., Dayton District.....	77,147	59,406	17,741	77.	.2	22,770
34. Chicago Co., Waukegan Dist.....	26,886	20,447	6,439	76.1	.21	7,758
35. C. U. Co. (Indiana), Central Dist.....	83,211	63,198	20,013	75.9	.7	30,308
36. Chicago Co., Oak Park Dist.....	34,546	26,115	8,431	75.6	.18	9,660
37. Chicago Co., Hammond Dist.....	20,170	14,868	5,301	73.7	.19	5,895
38. C. U. Co., Springfield Dist.....	31,799	23,368	8,431	73.5	.1	9,972
39. Chicago Co., Evanston Dist.....	42,161	30,592	11,569	72.5	.14	9,687
40. Chicago Co., Wheaton Dist.....	11,626	8,331	3,295	71.6	.07	3,803
41. Chicago Co., Aurora Dist.....	18,577	13,141	5,436	70.1	.08	6,491
42. Chicago Co., Gary Dist.....	9,294	6,504	2,790	70.	...	2,213
43. Chicago Co., Joliet Dist.....	28,732	19,949	8,833	69.3	.56	9,675
44. Cleveland Co., Cleveland Dist.....	117,851	79,727	38,124	67.7	.62	56,603
45. C. U. Co., Decatur Dist.....	18,359	12,059	6,300	65.7	.6	5,501
46. C. U. Co., Rockford Dist.....	17,566	11,108	6,458	63.2	.4	7,600
47.*Mich. Co., Eastern Dist.....	61,945	35,684	26,261	57.6	1.1	31,199
	3,237,733	2,633,275	604,458	84.4		1,047,468

*Quarterly rental billing.

Division Summary.

Wisconsin Co.....	277,834	255,449	22,385	91.9	.3	120,922
C. U. Co., Ohio.....	289,431	242,599	46,832	83.8	.6	112,410
C. U. Co., Indiana.....	185,471	153,492	31,979	82.8	1.4	75,798
Chicago Co., City.....	1,365,088	1,127,144	237,944	82.5	.07	332,268
Michigan Co.....	537,718	423,205	114,513	78.7	1.4	191,045
C. U. Co., Illinois.....	211,901	163,950	47,951	77.4	.3	83,048
Chicago Co., Suburban.....	252,439	187,709	64,730	74.3	.21	75,374
Cleveland Co.....	117,851	79,727	38,124	67.7	.62	56,603
	3,237,733	2,633,275	604,458	84.4		1,047,468

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent of the total charges for collection during June, 1913, are given below:

City and State.	Per cent collected.	Stations.
Columbus, Wis.....	100	830
French Lick, Ind.....	100	438
Horicon, Wis.....	100	346
Danville, Ohio.....	100	241
Marshall, Ohio.....	100	173
Rainsboro, Ohio.....	100	140
Cumberland, Ind.....	100	121
Princeton, Wis.....	100	124
Newberry, Mich.....	100	113
Red Granite, Wis.....	100	111
Mackinac Island, Mich.....	100	101
Belfast, Ohio.....	100	98
Green Lake, Wis.....	100	92
Brooklyn, Ind.....	100	78
Burnett Jct., Wis.....	100	76
Linden, Ind.....	100	70
Harrisonville, Ohio.....	100	64
Richmond, Ind.....	100	63
Smith Valley, Ind.....	100	60
Bourneville, Ohio.....	100	52
Weidman, Mich.....	100	51
Niagara, Mich.....	100	33
Rapid River, Mich.....	100	32
Corsica, Ohio.....	100	21
Milan, Ill.....	100	21
Okawville, Ill.....	100	13
Goshen, Ind.....	100	17
Mt. Orab, Ohio.....	100	13
Elkhart, Ind.....	100	11
Plainfield, Ind.....	100	5
Beaver Dam, Wis.....	99.9	1,414

Greenwood, Ind.....	99.5	347
Lewisville, Ind.....	99.5	199
Greenville, Mich.....	99.5	35
Whitewater, Wis.....	99.4	826
Watertown, Wis.....	99.3	914
Sturgeon Bay, Wis.....	99.3	752
St. Ignace, Mich.....	99.1	181
Manitowoc, Wis.....	99	1,451
Marquette, Wis.....	99	1,420
Edwardsville, Ill.....	99	1,173
Hartford, Wis.....	99	632
Juneau, Wis.....	99	174
Hart, Mich.....	99	60
Berlin, Wis.....	98.7	405
Vincennes, Ind.....	98.6	2,543
Jefferson, Wis.....	98.6	394
Algoma, Wis.....	98.6	257
Peotone, Ill.....	98.6	24
Galva, Ill.....	98.6	8
Boyer City, Mich.....	98.5	400
Winneconne, Wis.....	98.5	133
Baraboo, Wis.....	98.4	761
Hillsboro, Ohio.....	98.4	625
Omro, Wis.....	98.3	545
Gaston, Ind.....	98.3	49
Appleton, Wis.....	98.2	1,201
Burlington, Wis.....	98.2	736
Mt. Gilead, Ohio.....	98.2	23
New London, Wis.....	98.1	504
Hurley, Wis.....	98.1	246
Crawfordsville, Ind.....	98	2,927
Neenah-Menasha, Wis.....	98	1,486
Stoughton, Wis.....	98	1,030
Oconto Falls, Wis.....	98	104
Peshtigo, Wis.....	98	126
Manilla, Ind.....	98	62
Ft. Atkinson, Wis.....	97.9	780
Lewistown, Ill.....	97.9	727
Oshkosh, Wis.....	97.8	4,237

Gladstone, Mich.....	97.8	333
Barberton, Ohio.....	97.8	59
Spencer, Ind.....	97.7	250
Stevens Point, Wis.....	97.6	906
Hortonville, Wis.....	97.4	332
Shawno, Wis.....	97.3	431
Buchtel, Ohio.....	97.3	140
Auburn, Ind.....	97.2	1,084
Mayville, Wis.....	97.1	449
Fond du Lac, Wis.....	97	3,485
Waupaca, Wis.....	97	481
Wrightstown, Wis.....	97	99
St. Charles, Mich.....	96.9	113
Waukesha, Wis.....	96.8	1,905
Lima Center, Wis.....	96.8	76
Kewanee, Ill.....	96.7	401
Oconto, Wis.....	96.6	479
Wayland, Mich.....	96.5	149
Boggs, Ind.....	96.5	86
Bedford, Ind.....	96.4	1,533
De Pere, Wis.....	96.4	1,054
Midland, Mich.....	96.4	254
Gladwin, Mich.....	96.4	120
Lancaster, Ohio.....	96.3	2,525
Kaukauna, Wis.....	96.3	432
Little Chute, Wis.....	96.3	50
Farwell, Mich.....	96.2	9
Menominee, Mich.....	96	963
Muncie, Ind.....	95.9	4,514
Muskegon, Mich.....	95.9	323
Beloit, Wis.....	95.8	1,770
New Castle, Ind.....	95.8	1,496
Stephenson, Mich.....	95.8	81
Flushing, Mich.....	95.7	270
Norway, Mich.....	95.6	258
Allegan, Mich.....	95.6	211
Green Bay, Wis.....	95.3	5,103
West Bend, Wis.....	95.2	423
Manchester, Mich.....	95.2	358
Winchester, Ohio.....	95	346

Cut-Over at Birmingham, Mich.

A neat little cut-over was made at Birmingham, Mich., on the night of Tuesday, July 22nd, without a single case of trouble. It was the removal of four positions of a No. 105 subscribers' switchboard from one room to another.

Five men in charge of Equipment Supervisor H. A. Harrington handled this job. The preparatory work of splicing the cables, etc., had been done during the previous month and all was therefore in readiness to complete the cut. At half past nine—an hour when all good Birminghamers are wrapped in slumber—the heat coils were pulled, the lugs cleaned of solder and the positions one by one rapidly carried through the doorway into their new location. Here the spliced switchboard cable and the assembled subscribers' lines were as rapidly thrust into their places, subscribers' and toll board connections made and soldered, and the 300 lines tested. Everything was O. K. The people of Birmingham had been out of service for not more than two hours and a half and, so far as the manager has learned, none of them knew it.

J. M. Kelley, the manager, handled a few toll calls which came through during the removal of the board by means of a telephone and a Western Electric test set on the rack; these were completed without a flaw.

Of the six operators employed at Birmingham the two on duty at the time of the cut-over were Maud Berry, chief operator, and Lella Shattuck. The men who did the cut-over work were: E. V. Mercer, E. S. Lane, George Campbell, J. E. Bridges and George Debrodt.

No Permit to Compete

Following an opinion by Attorney General W. C. Owen, the Wisconsin Railroad Commission has dismissed the application of the Citizens' Telephone Company, of Eau Claire, for authority to issue \$60,000 of stock with which to build a telephone system in Eau Claire. The Attorney General held that under the conditions at Eau Claire there is no warrant for the establishment of another exchange to duplicate the service of the Wisconsin Telephone Company.

The Mosquito, Its Relation to Disease and Necessity for Its Extermination

By Dr. Alvah H. Doty, Medical Director, Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company

The extermination of the mosquito is called for not only because it is a source of annoyance to those who live in districts infested with this insect, but rather because it transmits disease. In order that the public may aid in carrying out this important sanitary measure it is necessary that we should know something of the habits of the mosquito and the manner in which it lives and breeds.

During the last century it was suggested that insects might in some way act as a medium of infection, although but little was done in the investigation of this subject until about thirty years

Thus it has been proven that two diseases which in the past have caused great suffering and loss of life throughout the world are transmitted only by the mosquito. More recently it has been found that other diseases are also conveyed from one person to another in this way.

Malaria is very generally distributed throughout the world while yellow fever occurs only in certain sections, such as South America, West Indies and the southern part of the United States, depending of course on the presence of the "Anopheles" and the "Stegomyia."

These important discoveries have been

fever and there is but little or no danger there from this disease.

It is quite well known that work on the Panama Canal some years ago under the direction of the French was discontinued because the malaria present could not be controlled and it was impossible to secure a sufficient force of workmen in good physical condition. Practically the same methods which were employed in Cuba were carried out in the Canal Zone, and with the same satisfactory results, and malaria so far as interfering with the construction of the canal has been a negligible factor.

Curiously enough, while the United



Fifty Yard Wheelbarrow Race for Couples.



Fifty-Yard Dash for Couples.

RACES AT MILWAUKEE PICNIC.

ago when Dr. Laveran, a French army surgeon on duty in Algeria, discovered in the blood of malarial cases under his care a germ or organism which he believed to be the cause of this disease. He announced the discovery to the Paris Academy of Medicine and his statement was afterwards fully confirmed by other investigators. Then came the question as to the means by which these organisms are introduced into the human body. This led to extended research and experimental work and resulted in securing conclusive proof that malaria is transmitted by a variety of mosquito known as the "Anopheles," and that so far as we know at the present time there is no other way by which this disease can be communicated.

Not long afterwards further evidence was presented as to the danger of the mosquito as a medium of infection. This occurred during the occupation of Cuba by the United States when a commission, composed of medical officers of the United States army was appointed by the president and directed to proceed to Cuba and, if possible, identify the germ of yellow fever and the means by which it is transmitted. While the former has not yet been discovered, the commission was able to present indisputable evidence that this disease is also transmitted by the mosquito and, as in the case of malaria, there is at present no other known means of infection. The variety of the mosquito which transmits yellow fever is called the "Stegomyia."

followed by great activity in the way of mosquito extermination in different parts of the globe, the earliest and most effective work being done in Italy, for this country had long suffered from malaria to such an extent that even the value of her army had become seriously impaired. The great flats or swamps in the vicinity of Rome, known as the Campagna, were found to be notorious breeding places for the mosquito, particularly the "Anopheles," and malaria under the name of "Roman Fever" has in the past been a familiar term and a cause of great danger to many travelers who have visited there.

The work undertaken by the Italian Government was followed by the most brilliant and satisfactory results. Greece also has been a great sufferer from malaria, for at one time almost a third of its population was affected by this disease, but with the aid extended by Italian experts the mosquito has been largely eliminated from that section of the world.

The United States Government deserves the credit of having carried out the most successful campaigns against the mosquito which have yet occurred. This refers to the extermination of this insect in Cuba and in the Canal Zone.

Previous to the Spanish War yellow fever constantly existed in Cuba and was a great menace to all who visited the country who were not immune. Now Cuba is practically free from yellow

States Government has in other countries secured the most brilliant results in the way of mosquito extermination it has done practically nothing in the way of protecting its own people against the danger of this insect, for whatever work of this kind has been carried out in this country has been the result of activity on the part of the various states, municipalities, or through private enterprises.

Mosquito extermination has long since passed the experimental stage and there is no doubt as to the success of this work if proper methods are employed.

Mosquitoes propagate only in water, upon the surface of which they deposit their eggs, sometimes 300 or 400 in number. Usually within twenty-four hours afterward the eggs are hatched and the larvæ drop into the water. These little bodies, commonly known as "Wigglers," when full grown are about one-quarter of an inch long, although at first they are very small and may not be detected by the naked eye, except by those familiar with the propagation of this insect; however, after a day or two they may be easily recognized. A very interesting way of studying the further propagation of the mosquito is by having the water containing the larvæ placed in a glass and in front of the light. They will then be seen moving about in the water in a very rapid and jerky way. It is interesting to note that while the larvæ cannot live out of the water they must also have air, and for this reason will every minute or so rise to the surface above

which they extend their tail, for this contains the opening of the respiratory apparatus. In other words, it may be said that a larva breathes with its tail.

After a period of six or eight days it will be noticed that the head of the larva becomes enormously enlarged and in appearance very much resembles a "comma" (,). This is the pupal stage and is present about two days preceding the birth of the mosquito. The pupae will be found rather inactive, except when frightened, and lie close to the surface of the water.

If the observer has sufficient patience to carefully watch the phenomenon the pupae will be seen to rise to the surface for the last time, when gradually the envelope or covering which surrounds them is broken and the *full grown* winged insects appear. They hesitate for a moment resting on the envelope or shell in order to get their bearing and then fly away.

While there are many varieties of mosquitoes throughout the world, it will be sufficient for the purpose of this

toriously house mosquitoes and remain close to their breeding places.

The "Striped Legged" mosquito is not often found in the house but usually recognized with the naked eye by broad white transverse stripes on its legs and a white broad transverse stripe on its beak. This mosquito is found along the Atlantic Coast and it propagates in such enormous numbers that some of the coast towns are almost uninhabitable.

Formerly it was believed that all varieties of the mosquito breed wherever water can be found. Now we know that the "Inland" mosquito will not breed in salt water swamps and that the "Sollicitans" or "Striped Legged" mosquito will not breed inland. This knowledge is of great value in the extermination of these insects.

The breeding places of the "Inland" variety are so numerous that they commonly escape detection even on the part of those who are making careful search for them, and for this reason the extermination of this mosquito is often very difficult. About the premises they

the females, *the only ones which bite*, crave blood, as those living in the mosquito infested districts will testify.

The larvæ are voracious eaters and they move rapidly about in the water in quest of food which they find in little particles of organic matter. Probably but little or no food is required during the pupal stage, for this is preliminary to the birth of the mosquito.

It is commonly believed that mosquitoes live only a day. There is no truth in this and although it is very difficult to estimate their life cycle, it may be said that the female probably lives two or three weeks and the male but a few days.

Probably no detail connected with the subject of the mosquito has been more thoroughly discussed than the distance which they travel from their homes or breeding places. The "Inland" mosquito is not a migratory insect and usually remains close to its breeding place, probably within four or five hundred feet of it unless blown away by winds. This knowledge is of great practical value in



Fifty-Yard Dash for Young Ladies.



Seventy-five Yard Dash for Young Ladies.

RACES AT MILWAUKEE PICNIC.

article to refer to those which are commonly found in the United States. Two classes may be described, the "Inland" mosquito and the "Sollicitans," also known as the "Salt Water Swamp," the "Striped Legged" or "Atlantic Coast" mosquito.

The most common inland mosquito, the "*Culex Pungens*," is also known as the "house or rain barrel" mosquito and is the one usually found indoors. It is of medium size with rather a thin body, its color ranging from a deep yellow to a dark brown, with legs of practically the same shade, having no markings or bands on the back or feet. The "*Anopheles*" or "Malaria" mosquito is a variety of the "Inland" mosquito, and if carefully examined will be found to have wings which are spotted with brown or black, and when at rest its body is almost at right angles with the surface, while the body of the "*Culex Pungens*" or common "house" mosquito is parallel to it.

The "*Stegomyia*" or "Yellow Fever" mosquito, also of the inland variety, is found only in the southern part of the United States and has the reputation of being the most attractive of all mosquitoes. It is comparatively small with brilliant stripes on its abdomen, chest and legs; however, the latter are not so pronounced as in the case of the "Striped Legged" mosquito, besides it has no transverse stripe on its beak (the rod like process extending from the head), which is found in the latter. Both the "*Anopheles*" and the "*Stegomyia*" are no-

usually consist of such receptacles as old tin, crockery, and glassware, cesspools, drains, unused water trough, rain water barrels, cistern, broken roof leaders, etc. Urns in cemeteries, statuary in parks, excavations for new buildings, street sewers, water tanks, etc., are also common breeding places.

Contrary to the general belief mosquitoes do not breed in large bodies of water unless these are particularly rich in organic matter; however, they will breed along the edges in depressions made by the hoofs of animals which come to drink. They prefer small pools rich in vegetation and where they may be quiet and better protected.

While a few varieties of the "Inland" mosquito, probably the "*Anopheles*" and the "*Stegomyia*" among them, may prefer cleaner water for breeding, the more common types prefer that which is contaminated and filthy, for it contains more nourishment for themselves and for the future larvæ; therefore, the additional danger of filthy and stagnant water is apparent.

As already stated, the "Striped Legged" mosquito breeds only in salt or brackish water and not inland. Those who have not seen the great swamps along the Atlantic Coast can form no idea of the enormous number of breeding places they supply in the form of depressions on the surface which are more or less constantly covered with water from the incoming tide.

Mosquitoes are essentially vegetarians and live on plants, fruits, etc., although

the extermination of this variety and if it is found in large numbers about the house it may be properly assumed that the breeding place is not far away.

On the other hand, the "Striped Legged" mosquito voluntarily will go many miles from home.

The sudden appearance of a large number of mosquitoes suggests that they may have been brought from a distance by winds, and if the direction from which it blows is ascertained considerable information may be secured as to the situation of the breeding place.

There is no doubt that mosquitoes are carried from one place to another over long distances by modern means of travel. This will explain the appearance of these insects in certain sections of the country which heretofore have been free from them.

Mosquitoes are particularly active at night and it is then that they breed and bite. During the day they collect in the tall grass and bushes evidently to rest and to escape the light and heat; this growth also protects them during rain storms. The sudden appearance of these insects in large numbers immediately after a storm has subsided will often be noticed. The importance of removing this growth about the premises whenever it is practical to do so is evident.

The question is very naturally asked in what way do mosquitoes perpetuate their species from one season to another. In some varieties, as the "*Stegomyia*" or "Yellow Fever" mosquito, which are found in tropical or very warm coun-



Main Girls.



South Girls.

TWO MORE GAY MILWAUKEE PICNIC GROUPS.

tries, there is more or less continued propagation of these insects; however, where there is a decided climatic change, as in the more northern section of this country, or wherever the temperature remains below 70 degrees, some of the female mosquitoes are perpetuated through the cold weather in a state of hibernation or torpor. Late in the fall they seek some warm protected place, preferably cellars, stumps of trees, barns, etc., and here they remain in a dormant condition until the warm weather returns in the spring when they become active again, seek a breeding place, lay their eggs and die.

In late years a very curious and interesting thing has been discovered in connection with the "Striped Legged" mosquito. It is found that this variety, instead of hibernating in the form of the winged insect, passes this state in the form of the egg which is imbedded in the soft earth of the swamp and remains there until it is washed out by the warm tide water in the spring. It then passes through the various stages of propagation already referred to.

We have now learned sufficient regarding the mosquito to identify and exterminate it. To do this successfully we must first ascertain what variety we are to deal with in order that we may more easily destroy the breeding place. Away from the coast it is the "Inland" variety

which is almost always the source of annoyance.

Breeding places must, if possible, be destroyed and not treated, i. e., they should be removed, drained or filled in, in order that they may not again be available for this purpose. Sometimes this cannot be done, then we depend upon some temporary agent for the destruction of larvæ. The most available agent for this purpose is petroleum oil. This does not poison the larvæ, as it is generally supposed, but suffocates them. We have already learned that the larvæ extends its tail above the surface to secure air; when the water is covered with oil, the minute opening of the respiratory tract becomes plugged, and suffocation follows. Crude petroleum does not spread evenly over the surface, for it is too thick, therefore *semi* crude oil must be used. This is much thinner and when sprayed on the water immediately forms a film over the surface. In this manner the larvæ are usually destroyed within twenty minutes. A pint of this material is ample to cover an estimated water space of twenty-five feet or more in diameter, and there is no better way of applying it than by the ordinary garden sprinkling pot with the holes in the expanded nozzle enlarged to allow of the free exit of the oil. This should be applied about every ten days. There is no other temporary agent which ap-

proaches the oil in value for the purpose above referred to.

In dealing with the "Sollicitans" or "Striped Legged" mosquito it is hardly necessary to state that the use of petroleum oil would be practically worthless for the destruction of the larvæ of this variety, for the salt water swamps are often many miles in extent and it would be impracticable to attempt to cover the surfaces with this material; therefore, the extermination of this mosquito must depend on another method and this is *drainage*, for it is only in this way that water may be constantly removed from the swamp. As mosquitoes cannot propagate without water it follows that their breeding places are by this means destroyed.

This method has been successfully carried out in the United States. The ditches are usually made about ten or twelve inches wide and two feet deep, and from fifty to two hundred feet apart, depending on the character of the swamp land. When large areas are to be drained the small ditches are made to connect with larger drains, usually three or four feet wide, which conduct the water to the sea. It is true that these become filled when the flood time occurs, but the water remains largely in the ditches rather than on the surface of the swamp and they are practically emptied with the ebb tide.



North and South Girls and Boys.



Killbourn Girls.

POSING FOR THE CAMERA AT MILWAUKEE PICNIC.

Suggestions are sometimes made that various kinds of birds, bats, etc., should be propagated in order that they may destroy mosquitoes. Various forms of fish are also used for this purpose in connection with the larvæ in pools and streams. Theoretically these means may appear to be of value, but practically they are worthless, for even an enormous number of birds would make but little reduction of the number of winged insects present. These theories are harmful because they divert the public mind from the only means by which mosquitoes can be successfully exterminated, and that is by the *destruction of their breeding places and in no other way.*

School children are often called upon to assist in the extermination of the mosquito as well as the fly, by destroying the winged insect. This cannot be regarded as a desirable, useful or scientific means of extending aid in this important work for it has no practical value in reducing the number of these insects. State and municipal health authorities should be held directly responsible for the extermination of the mosquito by the destruction of their breeding places. Health laws are sufficiently broad for this purpose in every section of the country for mosquitoes constitute a menace to health. No further proof is needed as to the success which follows properly organized methods in this work than the results secured by the United States Government in Cuba and in the Canal Zone.

Bees in Cable Box

A swarm of bees was discovered in the act of taking possession of a cable box of the Central Union Telephone Company at Greenwood, Ind., on June 23rd. The bees were entering the box through the hole which admits the bridge wire.

The door of the box was opened by the use of a long pole and it was thought that the intruders would leave, but they showed no such intention. An attempt was made to smoke them out with sulphur and this disposed of a few, but the bulk remained stubbornly. Meantime an offer to give the bees to anyone who would hive them found no takers.

Finally, Ross Vest, a lineman, decided to make the attempt. Covering his head with netting he placed a hive in a tempting position before the open box, captured the queen bee and placed her in the hive. The other bees followed rapidly. Mr. Vest is now taking orders for honey.

With the aid of a little imagination some of the bees can be seen in the picture on the inside of the cable box door.

Directory Thirty-four Years Old

While examining papers and letters which he had preserved in a tin box for many years, George Gawler of Columbus, Ohio, found what is thought to be the oldest telephone directory in Columbus.

The "directory" consists of a small card upon which the names of the subscribers were written. Numbers were placed in a column before the names and ranged from 3, which was the central office, to 18, there being only fifteen subscribers at the time. The card is yellowed with age and is about thirty-four years old.

The telephone office was located at the southeast corner of Gay and High streets and was equipped with a switchboard which was no larger than the top of an office desk. The Columbus Telephone exchange, as it was then known, was managed by George H. Twiss.



A TICKLISH JOB.

Ross West, lineman at Greenwood, Ind., hiving a swarm of bees.

Obituary

LALON Z. FARWELL, president of the Freeport Telephone Exchange Company, of Freeport, Ill., died August 11th, aged seventy-seven.

ROBERT M. FERRIS, chief engineer of the New York Telephone Company and the Bell Telephone Company of Pennsylvania and associated companies, was drowned while swimming Sunday morning, July 13th, at Siasconset, Nantucket Island.

While only thirty-seven years old, Mr. Ferris was one of the leading telephone engineers of the world. After graduating in 1897 from the Massachusetts Institute of Technology he entered the engineering department of the New York and New Jersey Telephone Company. He received a series of promotions, culminating in his appointment as chief engineer of the New York Telephone Company in 1908, succeeding John J. Carty, who became chief engineer of the American Telephone and Telegraph Company. In 1912 his position was enlarged to cover the Pennsylvania group.

JAMES RILEY WILEY, Western manager of the Standard Underground Cable Company, died August 17th in Chicago. Mr. Wiley was born in Newark, Knox county, Mo., in 1847, and was a graduate of the St. Louis City University. He was one of the pioneers in the telephone business, having held responsible positions with the Metropolitan Telephone Company of New York, now the New York Telephone Company, from 1878 to 1895. In that year he went to Chicago to act as Western manager for the Standard Underground Cable Company, which position he held at the time of his death. Mr. Wiley had been ill for some time with pneumonia

and the last few months were spent at Cape Cod.

He was a member of the Chicago Association of Commerce, Chicago Electric Club and the Telephone Pioneers of America, and had a great many friends in the electrical and telephone business.

CHARLES H. GALLION, editor of the *Calumet Index*, of Roseland, president of the Cook County Press Club and an ardent and active booster for the Calumet territory during the last nine years, died August 9th, at the Washington Park Hospital, Chicago, his death resulting from typhoid fever and complications.

First Telephones in New York

The first men to venture their time and money in the telephone business in New York City were Charles A. Cheever and



OBVERSE OF MEDAL.

Hilborne L. Roosevelt, says the *Telephone Review*. On August 31, 1877, they organized the Telephone Company of New York, capital \$20,000. During the life of the company, which was but ten months, it was awarded a bronze "medal of progress" by the American institute.

The *Review* states that "probably the first telephone line in New York was the



REVERSE OF MEDAL.

one from the A. D. T. office at 704 Broadway to Mr. Roosevelt's organ factory, on West Eighteenth street, in 1877, and the second was soon after installed between Commodore Cheever's office in the Tribune building and the Law Telegraph Exchange, at 104 Fulton street."

The Beginnings of Science

By B. V. Hill, Chicago.

(Second Article.)

Artemus Ward, in his London Lecture, said that one peculiarity of the lecture was that it contained so many things that did not have anything to do with it. He went on to say that he once knew a man who was entirely without teeth, but who was the best performer on the bass drum he had ever heard. There is always a temptation to ramble in a sketch like the present and it is generally best to resist. The natural subjects of this one are Descartes and Torricelli and it may be that the personality of the former can be taken as excuse for a short digression.

After the appearance of the first article, in the BELL TELEPHONE NEWS for August, a friend of the writer met him and, after speaking pleasantly of the article, said: "But after all why should we not develop a science of man as exact as the science of things? Is it not of more importance?" Without doubt the science of man is the highest of studies. The psychologists have long been trying to develop it. Lately, however, more serious efforts have been made and we have the work of Hugo Muensterberg of Harvard University, of Harrington Emerson in his more practical studies of efficiency and after these a number of writings on the Science of Salesmanship and the like. The title of *efficiency engineer* has made its appearance. This study has been greatly neglected, however. The conquest of nature, from Galileo to Edison, has been so spectacular and has added so much to our physical comfort, to say nothing of its having turned our philosophy and religious belief upside down, that there has come to be a glamour about the study of the sciences and the colleges and technical schools are full of young men studying natural science and engineering, fifty per cent. of whom were much better off in business, on the farm or in the shop, as there can at best be only disappointment ahead of them. The thoughtful scientist is the first to admit that the study of men is above that of things. The world tacitly holds this belief and gives its rewards accordingly. If any one doubts this let him watch a real inventor trying to get for his discovery half what it is worth and the glib promoter selling bogus mining stock. While we may not, with Professor Bergson say that instinct and intuition are above reason, we are inclined to think that he had some ground for the idea. Galileo and Edison are masters of things; Savonarola and Lincoln of men, but there are few of us who do not give the latter the higher place.

However, we must progress with our story and tell of the life of Descartes whose discoveries made possible our present day engineering theory. In him we find, in many ways, the opposite of Galileo. He was born at La Haye in Touraine, France, in 1596. His family were of the nobility. When he was eight years old he went to the Jesuit college just established at La Flèche, where he remained until he was sixteen. Here he was taught a number of languages and the old philosophy of the schools, based largely on the writings of Aristotle. While, as a boy he knew that this knowledge was useful he felt that entirely too much time was being given to it. It was not till the last years of his stay here that he had a taste of mathematics. He decided that the current manner of thinking and study was

all wrong and that the only way to get at truth was to rid his mind of all he had ever learned and begin all over again. The best way to commence this seemed to be to travel and so he enlisted as a volunteer under Prince Maurice of Nassau. This was the common way for young gentlemen to travel in those days, just as it had been the fashion earlier to make pious pilgrimages. Prince Maurice was himself a great military engineer and had gathered about him a number of scientific men. In this service Descartes met several mathematicians whose acquaintance was of great service to him. He soon became disgusted with the army life, as it seemed largely to furnish excuse for gentlemanly excesses, and he left it. However serious of mind he was, he spent two or three years in Paris disposing quietly of whatever wild oats he had. He soon tired of this too and went to Holland,



DESCARTES.

allowing only two trusted friends to know of his whereabouts. Here he set about developing his system of philosophy. He began by doubting everything, even his own existence. He first concluded that the very fact of his doubt proved that he did think and therefore he existed and he wrote his famous truism: "I think, therefore I am." Of his treatise on *method* we can not take space to tell more here. At the age of twenty-four he made his great discovery, that of the analytic geometry by the application of algebra to geometry. Of this, too, we can say very little without being led into technical mathematics rather too far. Suffice it to say that it made possible the solution of problems in various branches of science which would have been out of the question otherwise. Our Science of Mechanics on which is based all our construction of machinery, buildings, pole lines and the like is based on the geometry of Descartes.

Descartes' fame rests quite as much on his system of philosophy as on his mathematics though it is doubtful whether the former had nearly so great an influence on the progress of thought. In reading his life one is left a little in doubt of the completeness of his sincerity. While starting his reasonings with a complete doubt of all he had been

taught, he very carefully kept his standing with the Church. This seems to have been through fear rather than piety. When he was about to publish his book he learned of the treatment given Galileo in Italy a few years before. He was taken with a panic and withheld his work for at least a year, when his courage returned a little and he let it go to press. In 1649 The Queen of Sweden invited him to go to that country and instruct her in the new philosophy. Things were beginning to be a bit warm in Holland and he was perhaps more than willing to go. He had been brought up a courtier, however, and had the feeling of the rights and sovereignty of rulers that it is difficult for us to understand. Descartes had led a life of comfort if not of ease. One of his habits was to lie in bed and meditate and write till nearly noon. The Queen of Christianity was a more strenuous person and had her lesson at five in the morning. The philosopher would not complain to royalty and went dutifully. The winter was severe, even for Sweden and these early journeys in the cold were too hard for him. He died in 1650 of inflammation of the lungs. His hope of solving all human problems by the mathematical methods which had succeeded so remarkably in their own field had failed but he had opened up a new era in both philosophy and mathematics.

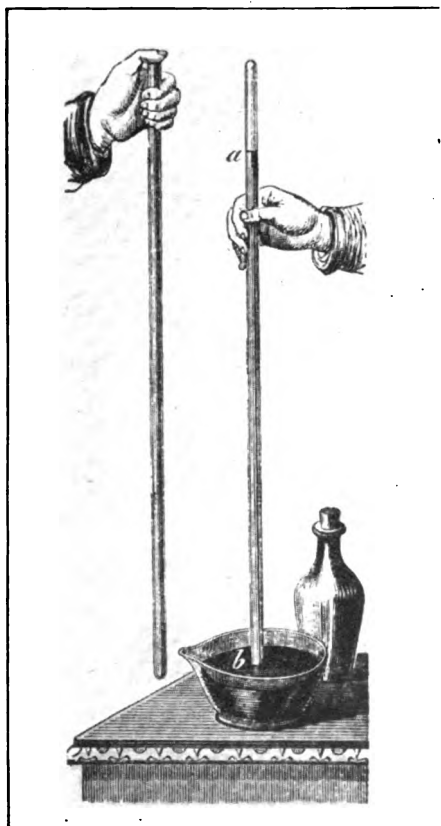
Evangelista Torricelli was born at Placaldoli, Italy, in 1608 and died in Florence in 1647. His life was quiet and rather uneventful, as those of most of the scientists have been and very different from that of Descartes, nobleman, soldier, traveler and courtier. He was the friend, pupil and amanuensis of Galileo and his successor as professor of natural philosophy in the University of Florence. He wrote on a number of subjects, his principal book being *The Geometry*, published in 1644. The discovery for which he is famous, however, was made in the previous year. It was the discovery of the weight of the earth's atmosphere. If a tube of any ordinary length, closed at one end, be filled with water or any other light liquid, it can be held inverted and the liquid will not run out. The full barrel of a fountain pen illustrates this. This was explained by saying that Nature abhors a *vacuum*. All sorts of likes and dislikes were ascribed to Nature and her whims used to explain anything that could not be accounted for otherwise. Torricelli found that, if the tube was over 30 inches long and filled with mercury, the fluid will fall in the tube to a height of about 30 inches and stand there. The cut shows such a tube of mercury with the lower end immersed in a dish of the same liquid. Torricelli found the true explanation of this, namely, that the liquid will rise in the tube till the weight of the column is equal to that of a column of the earth's atmosphere of a cross section to that of the tube. If the tube has a cross-section of an inch the weight of the mercury is about 14.7 pounds and a column of air of an inch cross-section and perhaps 500 miles high weighs the same amount. The density of the air is much less of course as one ascends. Near the earth the pressure decreases at the rate of about half a pound per 1,000 feet of ascent. This tube shown in the cut is the simplest form of barometer. Accurate instruments are, of course, more carefully made and filled so as to get rid of the last traces of air adhering to the glass. There is an arrangement for raising and lowering the level of the mercury and

for reading the height of the upper end of the column. When a portable instrument is required an aneroid barometer is used in which the pressure is measured by its action in collapsing a box of thin,



TORRICELLI.

corrugated metal. The barometer is only one of the instruments which indicate the probable condition of the weather. Pressure is one factor but humidity and temperature are of equal importance, and most of the weather indicators, all



TORRICELLI'S MERCURY TUBE.

of which are generally sold as *barometers* are made, like the razors—to sell. The discovery of Torricelli made it possible to measure the pressure of the air, or of gases which might be experimented

with, and also gave a means of producing a vacuum. Some of the best vacuum air pumps are made to produce a "Torricellian vacuum." When designing a water pump, watching an X-ray tube or reading the weather indications we can think of Torricelli.

The Talking Coconut

"While in the government employ in the Philippines," says Sanford Jones, manager of the Western Electric Company, at North Yakima, Wash., "I was stationed on the Island of Basilan, which is a small island in the Sulu archipelago. The natives of the island were so uncivilized that they did not even know the value of money, and of course had never heard of a telephone. We frequently had them entertain us with their native dances, and in turn we would fill them with wonder and awe with a phonograph which we had in our outfit. We found it necessary to put up a telephone line between two buildings that were a little distance apart, which we did, using two Western Electric magneto sets. One day I found a rather larger coconut under a tree near the bamboo hut we were living in, and conceived the idea of making a coconut talk. So I emptied the contents and hung it on the outside of the house opposite the telephone, so arranged that we could put the receiver through the grass wall and drop it into the coconut.

"We invited some of the natives to see the wonderful coconut that we could make talk, and with the aid of an interpreter at the other telephone who understood their language we had a lot of fun. Some of the natives were so frightened they left the village, and one day a delegation of natives came and asked us to burn it, as they did not like to have so uncanny a thing around. So with great ceremony and much rejoicing we consigned it to the flames, and to this day I suppose they are telling their children about the coconut that could talk."

Quick Work

The efficiency of the telephone was illustrated about 10 o'clock Tuesday morning when the fire department was summoned to 604 South Washington Avenue. The man at the telephone had just called out the location of the fire and the auto engine had started through the doors when a second call came announcing that the fire was out. This was the quickest record made in recording an alarm and out in the history of the department, Chief Wallis says.—Saginaw (Mich.) News.

Telephone for the Nose

Great things are claimed for a remarkable double telephone which is being exhibited at the Academy of Sciences in Paris by Prof. d'Arsonval. It was invented by Dr. James Glover, the physician at the Conservatoire.

While investigating the question why the sounds of the voice were imperfectly transmitted as a rule over long-distance telephone wires, Dr. Glover was struck by the fact that vocal sounds, coming from the larynx, on arriving at the palate were split up into two streams, one of which emerged at the mouth, the other at the nose. An ideal transmitter would take up both streams of sound equally, but it was found that this was by no means the case with ordinary instruments.

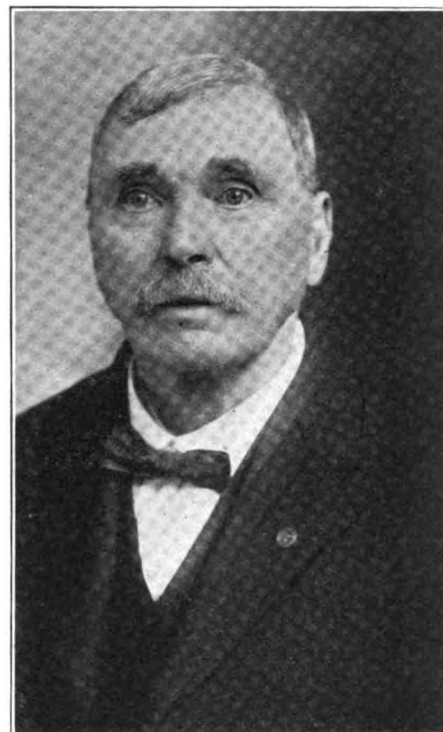
Dr. Glover, therefore, devised a queer-looking receiver with an extra micro-

phone, placed at an obtuse angle to the usual one in such a way as to be immediately under the nose when used.

Two or three forms of these receivers were made. It was found that the distinctness of the voice was greatly enhanced and the general sonority was also much increased. It is thought that the new double microphone receiver will prove indispensable in long-distance telephoning.—New York Times.

Thomas Boland

Lumberman, soldier, postal service, telephone service. These activities mark the career of Thomas Boland of the Wisconsin Telephone Company. Mr. Boland was



THOMAS BOLAND.

born at Albany, New York, August 15, 1842. His father moved to Milwaukee in 1854 and Thomas went to work a couple of years later and has been at it ever since.

Early in January, 1862, he enlisted in the Nineteenth Wisconsin Infantry and served three years, being honorably discharged in July, 1865. He lost an eye at the battle of Fort Darling and was wounded in the second battle of Fair Oaks. He was present at the surrender of General Lee at Appomattox.

After muster out Mr. Boland worked for a time for the Plankinton & Armour packing interests and was later employed by the St. Paul railroad, leaving its service to take a position in the postal service. When Henry C. Payne became president of the Wisconsin Telephone Company in 1884 he offered Mr. Boland a position. The offer was accepted and he is now rounding out thirty years of faithful service.

Association of Ideas

Detroit Engineer (discussing reduction of drawing with associate): You had better use a pantograph for this.

Innocent Bystander: How do you fellows use a trousers stretcher for your work?



CIRCUIT PHOTOGRAPH OF EMPLOYEES AND

Commercial Baseball League, Chicago**FINAL STANDING OF THE TEAMS.**

Aug. 23, 1913.

	W.	L.	Pct.
Western Electric.....	13	1	.929
Commonwealth Edison.....	10	3	.769
Peoples Gas.....	7	4	.636
Swift & Co.....	7	5	.583
Chicago Telephone.....	6	8	.429
Kellogg Switchboard.....	3	10	.231
Illinois Steel.....	3	11	.214
Fuller & Fuller.....	2	9	.154

The Chicago Telephone boys, who lost the last game of the season in the Commercial League and landed in the second division are able to console themselves with the thought that anyway the pennant stayed in the family. The Western Electric team, beaten but once during the summer captured the flag just like that—a trick the same brave aggregation likewise accomplished last year. The Hawthorne boys earned the calico and there are no sore spots. Following is the story of the final defeat, which put our panting pluggers into the basement squad:

WESTERN ELECTRIC CO.

	AB.	R.	H.	P.	A.	E.
McCann, lf.....	4	0	0	2	0	0
Naperstek, c.....	3	2	1	10	1	0
Rehar, lb.....	4	1	3	5	0	0
Hara, 2b.....	4	2	1	1	1	0
Froelich, cf.....	4	1	2	0	0	0
Schreiner, 3b.....	4	0	1	1	0	0
Grabow, ss.....	3	0	1	0	4	1
Sullivan, rf.....	2	0	1	2	0	0
Richter, p.....	2	0	0	0	1	0
Ryan, p.....	0	0	0	0	0	40
Magers.....	1	0	0	0	0	0
Total	31	6	10	21	7	1

CHICAGO TELEPHONE CO.

	AB.	R.	H.	P.	A.	E.
Pelletier, rf.....	1	0	0	1	0	0
Seaholm, 2b.....	2	0	0	2	2	0
F. Driscoll, cf.....	3	0	0	3	0	0
Kinsley, lf.....	3	0	0	0	0	0
H. Driscoll, lb.....	3	0	1	7	0	0
Meinke, 3b.....	3	0	0	3	3	1
Carroll, ss.....	1	1	0	1	2	0
Bates, c.....	2	0	0	4	1	0
Brunke, p.....	3	0	0	0	1	0
Total	21	1	1	21	9	1

Score by Innings:

Western Electric Co.....	2	0	0	4	0	0	—6
Chicago Telephone Co.....	0	0	0	0	0	1	—1
Two-base hits—Froelich, Rehar, H. Driscoll. Three-base hit—Schreiner. Home run—Hara. Struck out—By Richter, 8; by Ryan, 1; by Brunke, 4. Bases on balls—Off Richter, 2; off Ryan, 2; off Brunke, 2. Stolen bases—Rehar, Naperstek. Hit by pitcher—By Richter, 1. Umpire—McWhorter.							

Interdepartment League, Chicago**STANDING OF THE TEAMS AUGUST 23, 1913.**

	Won.	Lost.	Pct.
Central Installation.....	7	1	.875
Equipment.....	6	2	.750
North Installation.....	5	3	.625
Traffic.....	5	4	.558
Collection.....	3	5	.375
Evanston.....	3	5	.375
Auditing.....	2	5	.286
Engineering.....	2	8	.200

GAMES OF AUGUST 2, 1913.

Evanston, 5; Central Installation, 3.
North Installation, 16; Traffic, 13.
Engineering, 13; Auditing, 4.
Equipment, 22; Collection, 11.

GAMES OF AUGUST 9, 1913.

Auditing, 21; Evanston, 16.
Traffic, 15; Engineering, 4.
North Installation—Equipment, postponed.
Collection—Central Installation, postponed.

GAMES OF AUGUST 16, 1913.

North Installation, 9; Collection, 0—
forfeited.

Equipment, 9; Engineering, 0—
forfeited.
Traffic—Evanston, postponed.
Central Installation—Auditing, postponed.

GAMES OF AUGUST 23, 1913.

Evanston—Equipment, postponed.
Engineering, 9; Collection, 0.
North Installation—Central Installation,
postponed.
Traffic, 13; Auditing, 11.

Plant Department League, Chicago**STANDING OF THE TEAMS AUG. 24, 1913.**

	Won.	Lost.	Pct.
Oakland.....	9	2	.818
Lincoln.....	6	3	.667
South Installation.....	7	4	.636
Wentworth.....	5	4	.556
Nights.....	6	6	.500
Maintenance.....	4	7	.364
Calumet.....	3	8	.273
Harrison.....	1	9	.100

GAMES OF JULY 26, 1913.

Nights, 24; Harrison, 8.
Lincoln, 15; Wentworth, 5.
Oakland, 11; S. Installations, 1.
Maintenance, 22; Calumet, 19.

GAMES OF AUGUST 2, 1913.

Lincoln, 9; Harrison, 0.
Oakland, 23; Wentworth, 8.
S. Installations, 26; Calumet, 25.
Nights, 21; Maintenance, 16.

GAMES OF AUGUST 9, 1913—Postponed.**GAMES OF AUGUST 16, 1913.**

S. Installations, 9; Harrison, 6.
Wentworth, 14; Calumet, 3.
Nights, 8; Lincoln, 6.
Oakland, 6; Maintenance, 1.

GAMES OF AUGUST 23, 1913.

S. Installations, 13; Maintenance, 5.
Oakland, 26; Nights, 5.

GAMES OF AUGUST 24, 1913.

Calumet, 9; Nights, 7.





GUESTS AT MILWAUKEE ANNUAL PICNIC.

Baseball at Cleveland

The Cleveland Telephone Company has taken over the franchise of the Atlas Oil Company in the Cleveland Technical League, which is one of the strongest leagues in Cleveland.

The Atlas Oil Company had the weakest team in the league, and after playing seven games and losing all of them decided to drop out.

The Cleveland Telephone team started out under a big handicap, as they had to take the percentage of the Atlas Oil team, which was .000. The Telephone players, however, knew that they would not be in last place very long; they proved this by defeating the Parish and Bingham Company by the overwhelming score of 14 to 0 on Saturday, August 2d, and one week later won a double header from the William Edwards Company.

After winning the game from the Parish and Bingham Company, the Telephone players said that they would not lose a game the rest of the season, if they continued to have such good rooters as J. J. McCarty, A. Locke, L. Fiala, A. Dombrosky and Miss C. Barnum at every game. Get the fever, fans, and go out to every game, as the players certainly do appreciate it, and show it by playing high class ball.

Challenge from Michigan

The Michigan State Telephone Company baseball team challenges the baseball team of any of the other units in the Central group of companies. For particulars write to Martin Ewald, plant department, Detroit, Mich.

Baseball at Springfield

The Springfield Central Union baseball Club at Springfield, Ill., has been reorganized, the following officers being elected: Robert Jones, manager; J. D. Lumsden, field captain; C. W. Bluhm, secretary and treasurer, and K. Underwood, official score keeper and press agent.

In a game staged at Lake View Park in Peoria, July 22nd, the team representing the Springfield Exchange romped away with the Peoria boys by a score of 24 to 8. The principal event of the game was the excellent work of the Springfield pitcher, B. Jones, who struck out seventeen men and only allowed three bases on balls. A return game will be played with Peoria at some date in the near future. The Springfield boys have met defeat but once this season, having played the strongest amateurs in Central Illinois, and with the addition of Harold Gordy to the pitching staff the team welcomes all comers. Especially are they anxious to arrange games with other Central Union teams.

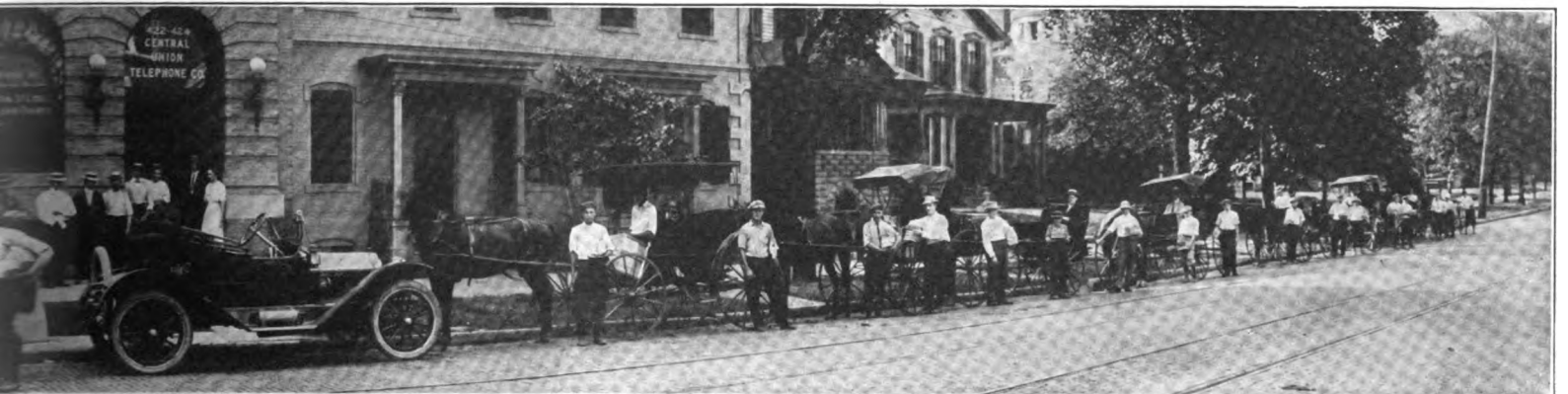
The Central Union team defeated the fast West End Athletics Sunday morning, August 3rd, by a score of 12 to 1. Gordy and Jones working on the mound for the Telephone boys let their opponents down with five scattered hits, striking out sixteen men while their teammates gathered seventeen safe swats off Crompton.

In a note from the Peoria District the defeat at the hands of Springfield as mentioned above is admitted with the explanation that the Peoria boys had stage-fright, as the game was anything but

in keeping with other games they have played. While they were defeated they enjoyed the visit of their opponents and expect to win back their lost laurels in a return game.



CUP WON BY CLEVELAND TELEPHONE ROOTERS' CLUB.



NEW DIRECTORY AT SPRINGFIELD, ILL.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

"Excuse It, Please"

"Say," said the man who wore his collar points inside his coat, "have you heard about this latest outrage committed by the telephone company? I suppose I can get as furious as anybody when I try to call anybody up and encounter a few of the obstacles which any efficiently equipped telephone corporation can hastily throw up between a subscriber and the party he wants to talk with. I dare say I have as large and fine a private collection of telephone grievances as any in the city. I have long been priding myself that there wasn't a single form of telephone annoyance, inconvenience, impertinence, insult provocation to murder and incitation to raving madness that I hadn't experienced.

"But, listen. Sunday I chanced to be alone in the house. I was upstairs in my private snuggery trying to transact a little business with myself half way along in a leisurely Sunday toilet. The day being warm, I'd laid aside all excess raiment. I was right in the act of filling my fountain pen preparatory to devasting my check book when the telephone bell rang. I stabbed the filler into the ink well, stood the pen in the matchholder, grabbed a bathrobe and dashed down the stairs. The bell rang once more just as I laid hands on the instrument.

"Hello," said I. There being no response, I said it again.

"About then I had a premonition. You know how often it happens that you answer your ring, thinking somebody's about to invite you to come over and sample the lemonade or something equally pleasant and unexpected, and all you hear is a snippy voice says, 'Nobody on your line.' You know how that makes you nearly as crazy as the exchange girl seems to suspect you of being.

"Well, I said 'Hello!' eight or ten times at various pitches. Then the girl said, 'Number, please?'

"My bell rang," I muttered humbly, expecting to be electrified into maniacal fury by the usual 'Nobody on your line.'

"Say, what do you suppose she said? Nothing more or less, if you'll take my word for it, than 'Excuse it, please.'

"And here I was, hot and peevish and all prepared to get as mad as a hornet, and all I could say was some driving idiocy about its being 'all right.' Confound it all, it wasn't all right, and it isn't yet. If those blasted telephone magnates have gone and added 'Excuse it, please' to the ritual of switchboard jargon they teach the exchange girls I say it's time to rise in revolt. What's the country coming to if a man can't even get in a towering passion at the telephone?"—*The Cleveland Leader.*

Mothers' Day at Fond du Lac

Mothers' day was observed at the Fond du Lac exchange of the Wisconsin Telephone Company, August 14th. The following day a similar affair was held at Neenah.

Invitations were issued to the mothers of Fond du Lac girls and of the fifty-five invited thirty-seven responded. The mothers were shown through the office

work at the exchange and the environments of their daughters.

Lively Argument at Cleveland

A contest was pulled off at the Cleveland day chief operators' picnic the other day which was not on the program. The outcome of the contest is still undecided, but here are the particulars and you may pick the winner.

Miss Gahn, chief operator at North, was telling the girls what a fine new dining room they had and that it was larger, had more tables, better fixtures and was better patronized than the one at Eddy. Right away Miss Spencer, chief operator at Eddy, had something to say, "Why your room isn't nearly as large as ours; your fixtures are brass, while ours are bronze; you have more tables, but ours are larger; and as to patronage, goodness sakes alive, the people out around St. Clair Avenue and East One Hundred and Twenty-third Street are wondering where the reception is being held every day!"

Romantic Marriage of Dayton Girl

Bell employees believe in using the telephone. This was the logic which recently suggested itself to the mind of Florence Igou, an employe of the Central Union exchange at Dayton, Ohio.

The bride-to-be attended the picnic of Central Union employes at Kilcare Park, August 16th. Louis J. Motzel, her fiancé, was also present and the couple decided that they would get married that day. They left the park and tried to find 'Squire Koehne, but he was in the country, six miles away.

Nothing daunted by this they put the telephone lines to work and soon had the justice on the wire. The case was explained and the 'squire consented to act. The necessary witnesses were assembled at each end of the line and the ceremony pronounced. The bride then returned to the Ludlow Street Exchange where she completed her day's work at the switchboard.

Night Operator's Pluck

Alma Mattier, night operator for the Chicago Telephone Company at Whiting, Ind., received many complimentary notices in the newspapers for her coolness when the building containing the exchange was struck by lightning and set afire on the night of August 7th. The storm was one of the worst of the season. When the building was struck Miss Mattier stuck to the board and sum-



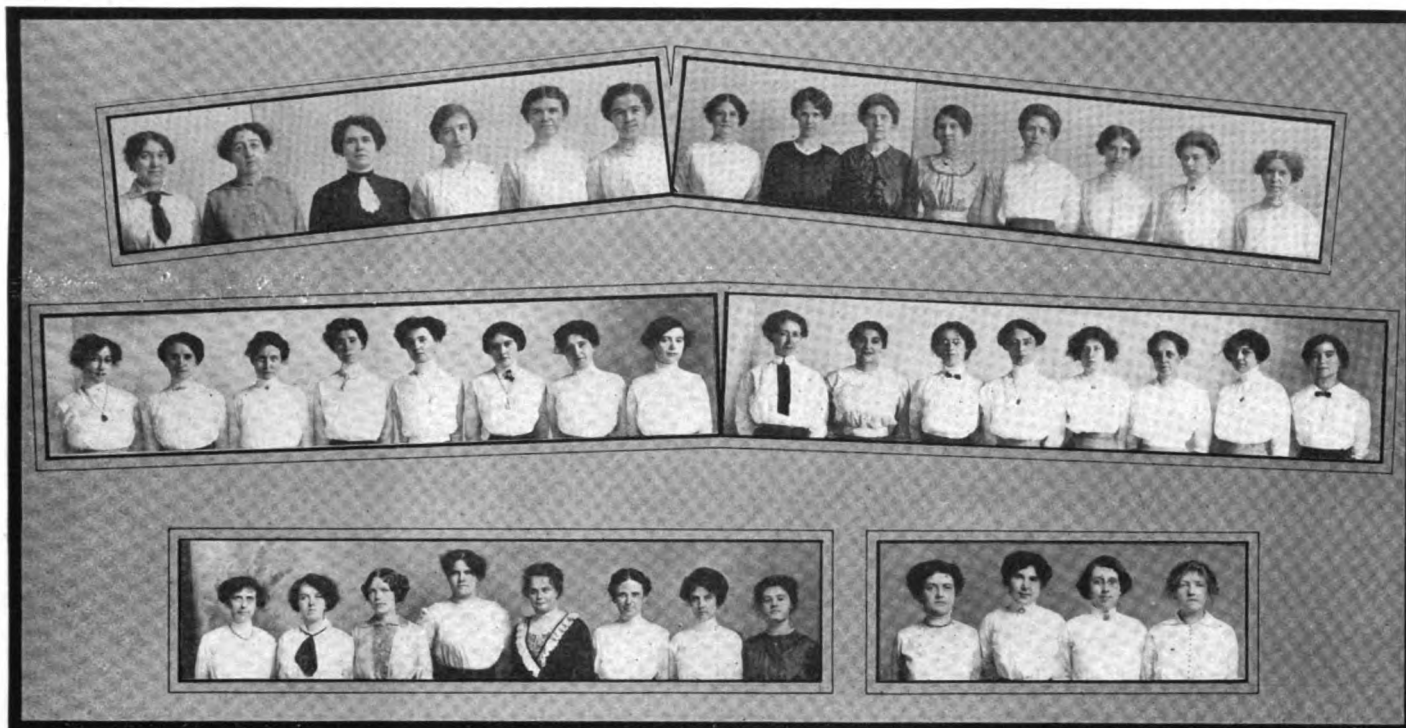
HARRISON NIGHT OPERATORS AT LINCOLN PARK.

and attendants explained the operation of the switchboard so that the guests might more fully understand their daughters' work and their environments while on duty. The hours from two to five o'clock were made interesting, instructive and pleasant.

A reception was held in the retiring room, which is the girls' own room, and here punch and cakes were served. Flowers decorated the room and each of the guests was presented with flowers.

Elizabeth Rosche, social secretary of the Wisconsin Telephone Company of Milwaukee, was in attendance and assisted in entertaining the mothers and telling of the work. B. S. Parish, district service inspector of Appleton, was also present to assist.

The affair was a big success, the guests showing a great deal of interest in the



TRAFFIC CHIEFS OF THE CENTRAL UNION TELEPHONE COMPANY IN ILLINOIS.

These photographs were taken at a series of meetings held recently at the district headquarters in Rock Island, Peoria and Springfield. The meetings were conducted by the chief instructors of the district. All matters pertaining to the work of the traffic department were discussed. It is reported that the gatherings were a great success, as a number of ideas were expressed and the points discussed freely. It is the intention to hold similar meetings during the fall and winter months.

In the two upper panels the faces shown, from right to left, are as follows: Miss Woodward, chief operator, Kankakee; Miss Dennehy, chief operator, Dwight; Miss Flannigan, local chief operator, Peoria; Miss Sullivan, chief toll operator, Peoria; Miss Nolan, traffic chief, Peoria; Miss Smith, chief instructor, Peoria; Miss Leonardy, traffic chief, La Salle; Miss Amos, clerk, Peoria; Miss Higley, service observer, Chicago; Miss Copps, traffic chief, Champaign; Miss Keenan, traffic chief, Bloomington; Miss Ufford, assistant local chief operator, Peoria; Miss Buck, chief operator, Pontiac; Miss Johnson, chief operator, Canton.

Center panels, left to right: Miss Highshoe, chief instructor, Centralia; Miss May, instructor, Springfield; Miss Duncan, chief operator, Jacksonville; Miss Fox, traffic chief, Springfield; Miss Finnegan, local chief operator, Springfield; Miss McCarthy, chief operator, Beardstown; Miss Monks, traffic chief, Alton; Miss Albright, chief instructor, Springfield; Miss Suesberry, traffic chief, Mt. Vernon; Miss Pfeiffer, traffic chief, Centralia; Mrs. Danforth, traffic chief, Cairo; Miss Beam, chief operator, Paris; Miss Sackman, chief operator, Carrollton; Mrs. Warner, traffic chief, Decatur; Miss Eck, clerk, Springfield; Miss Hall, chief toll operator, Springfield.

Lower panels, left to right: Miss Mitchell, chief operator, Quincy (Bell); Miss S. Munthe, supervisor, Rockford; Miss Swanson, chief operator, Moline; Miss McIlvane, chief operator, Rock Island; Miss Hoffmeister, chief operator, Quincy (Home); Miss Barnes, clerk, Rock Island; Miss Flagg, traffic chief, Sterling; Miss Hingstrum, instructor, Rock Island; Miss Haggenjos, traffic chief, Galesburg; Miss Desmond, chief operator, Galena; Miss I. Munthe, chief instructor, Rock Island; Miss Schultz, chief operator, East Moline.

moned the fire department by telephone. She stayed on duty while the firemen were extinguishing the flames and until relieved in the morning.

Operators Win Flag

Fifty young women employees of the Central Union Telephone Company at Indianapolis, Ind., formed a group of workers which won the first prize, a handsome flag, for raising the largest sum for the Summer Mission for Sick Children. The flag is presented each year by Captain Wallace Foster. The Bell girls won the prize by a canvass made in the Telephone Building and a lawn fete, the total proceeds being \$314. The flag was presented by Captain Foster on the Roof Garden of the Main Exchange, August 20th, and accepted on behalf of the girls by Mrs. Adeline McWhinney.

Exchange of Exchanges

Chicago Heights, Ill.

A repairman found that two single lines on the premises of a lady subscriber were hooked together. The lady said:

"I always hear someone else talking."

Repairman: "Yes, you hear cross talk."

Lady: "Oh, no, they are never cross, they always talk nice."

A repairman, after substituting a good purple cord for a worn green one on

the telephone of a woman subscriber was asked to restore the green one as it harmonized better with the wall paper.

Benton Harbor, Mich.:

A Benton Harbor subscriber, whose number was 343 complained that the operator made fun of him every time he called his own number. He wanted it changed to something without a three in it because the operator always said "thr-r-ree" with a decided roll on the three. When it was explained to him that this was the way to report 343, he said: "Well, that will be all right if that is the rule, but I am only a poor Jewish man and I don't want to pay my telephone rental. then be ridiculed."

Subscriber to Information: "Central, I want the number at that farm house two and a half miles east of the city. It's the only house on that road that has a brick foundation."

Information Operator: "What is the name of the party, please?"

Subscriber: "How do I know the name of the party? That's what I am asking you."

Commercial Chicago.:

In talking to a subscriber the other day about a new instrument, the commercial agent asked her if she wanted a desk or wall telephone. Lady answering in a Swedish accent: "Well, I don't know. I'll take a desk telephone if you

will give me a small desk, as I have very little space for it."

In taking a move order on a telephone, the subscriber was asked if she had a wall or desk instrument. She said: "Vell, the bell is on de wall, but de speaking tube is on de table."

A repairman had just finished repairing a telephone to which the subscriber was a German, and asked: "Can der operator feel it ven my 'fones' out a order? No? Yes? Goodbye. Coom again."

Oakland, Chicago.:

One of the evening operators at Oakland said when some one complained that she had hives that she would think the place for her was at the B board.

Ypsilanti, Mich.:

Subscriber: "Operator, give me a trey, two deuces and a Jack."

Operator: "What number are you calling?"

Subscriber: "Why, 322-J."

Milwaukee, Wis.:

A Grand office subscriber when asked to pay a nickel said, "I haven't any nickel. I'll put in a quarter and you push out the change."

When asked what letter on the line was wanted, a subscriber in Grand office said, "It's 'S,' their name is Smith."

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Service Standing

The following are the place positions of the offices for the month of July, 1913:

First	Edgewater
Second	Canal
Third	Oakland
Fourth	North
Fifth	Central
*Tied for third place.	
Neighborhood offices—	
First	South Chicago
Second	West Pullman

Suburban Promotions

Evanston, M. Gaynor, supervisor, to assistant chief operator; L. Leonard, operator, to supervisor.
Glencoe, C. Dietrich, operator, to assistant chief operator.
Joliet, M. Beckwith, operator, to night supervisor.

Marriages

Cupid is said to be working "time-and-a-half" at Lawndale. On July 23d Maud Silverman, day operator, was married to Ray Meyers. Miss Silverman received a cut glass vase from the force, with their heartiest congratulations.

Margaret Brown, day senior supervisor at Lawndale, was married August 6th to Thomas Sloan. A week prior to the wedding the whole day force surprised Miss Brown at her home and presented her with gifts in cut glass.

On Wednesday morning, July 3d, Kittle Welter, chief operator at South Chicago, and William A. Hogan, of the Stanton Avenue Police Station, were married by Reverend Father McCarthy, of Harvey, Ill. The girls of the South Chicago office presented the bride with a beautiful cut glass water set and fruit bowl.

Katherine Hellmuth, of Toll, who had been with the company more than eight years, resigned to be married August 5th.

Victoria A. Shima, assistant chief operator at Evanston, resigned June 15th and was married on June 28th to Le Roy George Harrer, also of Evanston. Mr. and Mrs. Harrer will make their home at Evanston.

Frances Rudd, night supervisor at Evanston, resigned and was married on July 9th to Frank Curten of Waukegan. Mr. and Mrs. Curten will live at Waukegan.

Elizabeth Burgess, day operator at Evanston, resigned and was married on June 9th to Albert Salter, of England. They will reside in Evanston.

Marie O'Connell, Main operator, was married Wednesday, July 23d, to Howard Wilder. The marriage took place at Our Lady of Sorrows Church. The bride wore a gown of white marquisette and shadow lace over pale blue crepe de chine and wore a hat with pale blue plumes. She was presented with a cut glass vase and salad bowl and other gifts from her friends in the office. She will live for the present in Joliet and later move to San Francisco.

Charlotte Heese, of Toll, who has been in the service of the company eight years, resigned to be married to E. J. Klemme, August 2d. After a trip through Minnesota they will be at home in Chicago in September.

The marriage of Sarah Spahn, Edgewater order clerk, and Norman Sayre, of the credit department, took place at the home of the bride's sister, Mrs. Ernest Ogren, August 4th, at 7 p. m. The bride wore white satin and carried a bride's bouquet of pink rose buds. Elfreda Kluge, of the Lincoln office, attended the bride and William Walker of the collection department, the groom. After a delicious luncheon, served by the bride's mother, Mr. and Mrs. Sayre left for Sister Lakes, Mich., where they spent their honeymoon with Mrs. Sayre's aunt. The best wishes of their many friends go with them.

Blanche Cronin, Central operator, was married to C. Peterson at St. Agnes' Church, July 2nd, at 5 o'clock. The bride was dressed in a gown of crepe meteor, and was attended by her sister, who was dressed in pink. After a drive through the parks, the wedding party repaired to the bride's home, where the bridal supper awaited them.

The central operating force presented Mrs. Peterson with a set of china. Mr. and Mrs. Peterson will be at home at 4208 Albany avenue.

Personal

Catherine Fitzsimmons, who resigned from the Calumet night force, received several beautiful presents from her friends in the exchange who regret her departure. Among these were a silver purse, fan and gloves.

Wisconsin Division

F. M. McEniry, Correspondent,
Milwaukee

Appleton District

Myrtle Struck, clerk at Appleton, spent a week's vacation at Milwaukee this month. Marie Hinchliff, clerk at Appleton, spent a two weeks' vacation at Chicago.

Elizabeth Maynard has been working in the Appleton office while the regular clerks were on their vacations.

R. J. Printup, collector at Appleton, spent a week's vacation at Milwaukee and Waukegan. Earl DeLong worked as collector during Mr. Printup's absence.

Mr. Whelan of the traffic department, Milwaukee, has been at Appleton preparing the cut-over directory preparatory to cutting the exchange into the new board.

The Berlin Telephone Company is building a new line extending ten miles north of Berlin and will have thirteen new subscribers to be added to the Berlin Exchange.

Ada Heffernon, local operator at Berlin, spent her vacation at Tomahawk.

E. F. Benson, foreman, and four men, of the Western Electric Company, are installing a No. 9 six-position central-energy switchboard, consisting of two toll, two rural and two local positions, at Berlin.

Ada Le Roy, toll operator at De Pere, has resumed her duties after enjoying a three week's vacation with relatives at Rothchild and Wausau.

Lena Larson, operator at De Pere, spent a two weeks' vacation visiting with relatives and friends at Milwaukee and Two Rivers.

Frank Haanen, repairman at De Pere, spent a week's vacation camping at Goldmine.

Adalia Peterman has accepted a position as temporary operator, succeeding Florence Albers, who took Evelyn Bopry's place. Miss Bopry recently resigned.

May Williston, a popular young lady of Marinette, and P. H. Hoebe, commercial agent for the Wisconsin Telephone Company at Fond du Lac, were quietly married at the home of the bride's parents, Mr. and Mrs. J. B. Williston, Marinette, on July 8th. The wedding was a complete surprise in Fond du Lac and only a few of the bride's nearest relatives knew of it. After spending a short honeymoon at the northern lakes, Mr. and Mrs. Hoebe returned to Fond du Lac and will reside at 370 South Main Street. Mr. Hoebe has been employed as commercial agent at Fond du Lac exchange for the past year, having been transferred from Green Bay.

Olive Watts, a former local operator at Green Bay, was married to F. M. Jefcott of Green Bay.

Mrs. A. Burns has been employed as matron at the Green Bay exchange. She has proven herself of great help to the operators and keeps the office and rest room orderly.

Ella Neubauer, local operator at Neenah, has returned to her work after a two weeks' vacation.

Anna Nielson, toll operator at Neenah, enjoyed a two weeks' vacation at Oshkosh.

On July 21st a miscellaneous shower was given by the operators at Neenah for Frances Mack, local operator, who resigned to be married August 4th to Felix Modjeska of Chicago. The young couple will leave on a three months' honeymoon through the eastern states. Blanche Mack has been engaged to take the position left vacant by her sister, Frances.

George Lovelace and crew have completed the repairing of the former F. R. V. rural line which runs north of New London.

Lillian Peterson, operator at Omro, enjoyed a week's vacation at Bear Creek.

Neva Haynes, operator at Omro, spent a week's vacation at home.

Elsie Lee, supervisor at Oshkosh, was married July 2d.

Emily Zemke, traffic clerk at Oshkosh, spent her vacation in Gary, Ind.

Katherine Meyer, assistant chief operator at Oshkosh, was married July 9th. Elizabeth Kenny succeeds Miss Meyer as assistant chief operator.

The operators at the Oshkosh exchange enjoyed a picnic lunch at Menominee Park, July 22d. Everybody reports having had a good time.

Edna Rehbein and Nora Holtz, operators at Oshkosh, spent their vacations at Chicago.

Jessie and Marjorie Kennedy, clerks at the Oshkosh exchange, spent their vacations in Boston.

Ray Gallagher and William Perrin, of Oshkosh, have been on the sick list.

Chas. Perrin, solicitor at Oshkosh, secured a contract for a three by seven cordless private branch exchange and was in working order five days after the contract was taken.

Material is being received at the Oshkosh exchange for an additional section to the toll board.

The Red River Telephone Company just completed two new circuits in the town of Waukegan. They expect to connect up about twenty new subscribers, which will make seventy-four telephones that this company has connected with the Shawano Exchange.

Emma Kessler, operator at Shawano, enjoyed a two weeks' vacation. Adelyn Hedges worked as relief operator in Miss Kessler's place.

Foreman Detbrenner is at Shawano putting up the new cable on Richmond Street.

The Bonduel Telephone Company, connected with the Shawano Exchange, is stringing three new circuits for about six miles, after which about forty new subscribers will be connected.

The Aniwa Telephone Company is building extensions to present circuits and intends to connect up about twenty-five new subscribers. This company is connected with the Shawano Exchange.

The Marion and Northern Telephone Company has started rebuilding and repairing farmer and trunk lines at Marion, Clintonville, Gresham and Tigerton. The company is also installing a power ringing system at Marion. F. E. Collen is foreman in charge of the construction work.

Eau Claire District

Emma Primmer, chief operator at Stanley, enjoyed a two weeks' vacation with friends and relatives at Grand Rapids, Wis.

Gunda Peterson, chief operator at Menomonie, has returned from Spooner, Wis., where she spent her two weeks' vacation.

Mabel Winge and Ditha Adams, operators at the Eau Claire office, visited the Menomonie exchange during the month of July.

District Service Inspector J. v. Young, of Eau Claire, spent several days during July inspecting the Menomonie office.

Marie Ashbrenner, supervisor at Chicago, visited the Menomonie office Wednesday, July 9th.

Emma Inenfeldt, who has resigned to be married, was pleasantly entertained by the traffic department of Menomonie on the evening of July 28th.

Elsie Brown, local operator at Menomonie, spent her vacation at Minneapolis and St. Paul.

Alma Retelstorf, toll operator at Menomonie, spent her two weeks' vacation at Swansville, Minn.

M. A. Mattison, wire chief at the Menomonie office, enjoyed his vacation at La Crosse, Minneapolis, Watertown and Milwaukee.

Hilda Lum, toll operator at the Menomonie exchange, recently enjoyed her two weeks' vacation.

Janesville District

Helen Schendel has been employed as operator at Beloit, succeeding Francis Glover, resigned.

Blanch Murray has been promoted to toll operator at Beloit, succeeding Ethel Coleman, who is leaving the city. Miss Murray is succeeded by Bertha Meili as operator.

Bessie Ryan, chief operator at Beloit, spent her vacation in the south.

Helen Willard has been employed as operator at Beloit, succeeding June Morse, resigned on account of sickness.

Wade L. Cash, assistant wire chief at Beloit, spent a vacation with his family in northern Wisconsin.

Florence Atkinson has again been employed as operator at Beloit, succeeding

Minnie Wolsdorf, resigned. Mitt Atkinson left the service last fall to return to school.

Jessie McKenna, chief clerk at Beloit, enjoyed her vacation at Racine, Wis.

Alvena Meili has been employed as operator at Beloit, succeeding Cecel Kuppe, resigned.

Marion Loomer has been employed as operator at Beloit, succeeding Angie Gavitt, resigned, on account of moving east.

Harry Phillips has been employed as line-man at Beloit, succeeding John E. Reynolds, resigned.

Harriet Weaver, district chief clerk at Janesville, spent her vacation at points in Minnesota and Wisconsin.

John Murphy, assistant wire chief at Janesville, visited Chicago and Milwaukee during his vacation, and reports an enjoyable time.

Marie Grinnell, commercial clerk at Janesville, enjoyed her vacation in Chicago, Milwaukee and Waukesha, recently.

Grace Travis, chief operator at Janesville, during her vacation recently visited Frankfort, Ind.

W. C. Roberts, formerly with the Columbus Exchange, has accepted a position with the Janesville plant department.

Blanche Jenkins succeeded Mrs. Chapin as chief clerk at the Evansville exchange.

Additional rural lines have been recently constructed out of Evansville Exchange which will supply twenty-two new farmer subscribers.

J. H. Murray, manager of the Evansville Exchange, is recovering from a broken ankle, received some time ago.

Rose Meili, bookkeeper at Beloit, spent her vacation at Racine and Fort Atkinson.

Agnes Cunningham has been employed as toll operator at Beloit, succeeding Dimple Taylor, resigned.

Blanche Murray, toll operator at Beloit, spent her vacation at Evanston, Ill.

Bessie Ryan, chief operator at Beloit, has returned from a trip through the south.

Beulah McPherson, toll operator at Beloit, enjoyed her vacation at Milwaukee and Minneapolis.

Narrow Escape from Drowning

Angela Wagner, supervisor in the Milwaukee exchange, toll department, had a thrilling experience at Pike Lake, near Hartford, Wis., while enjoying her vacation with friends. Miss Wagner, while in bathing, was fortunate in escaping drowning through the heroic efforts of Charles Courtney, a line-man of the Wisconsin Telephone Company at the Hartford exchange. It was noticed by her friends that Miss Wagner had suddenly disappeared, and it was only after repeated efforts that Mr. Courtney was successful in locating her and bringing her to the surface. The best of attention was given her and she soon revived.

Exchange Name Changed

North Exchange, Milwaukee, has been renamed "Lincoln" and the South Exchange "Hanover." The similarity in sound of the two former prefixes and their frequent confusion with North Milwaukee and South Milwaukee prompted the change.

Good Service at Lake Geneva

The American Express agent at Lake Geneva, Wis., recently sent the following letter to the chief operator of the Wisconsin Telephone Company:

Lake Geneva, Wis., August 6, 1913.
To Chief Operator:

We want to inform you that we have noticed the good service we have had of late and it follows that we appreciate it and hope that it will continue. If we have made complaints in the past we were justified in doing so and we feel that when we get good service it is worthy of mention.
(Signed) H. F. COATS, Agent.

Michigan Division

David H. Dodge, Correspondent,
Detroit

P. B. X. Development in Detroit

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of June, 1913, were the following:

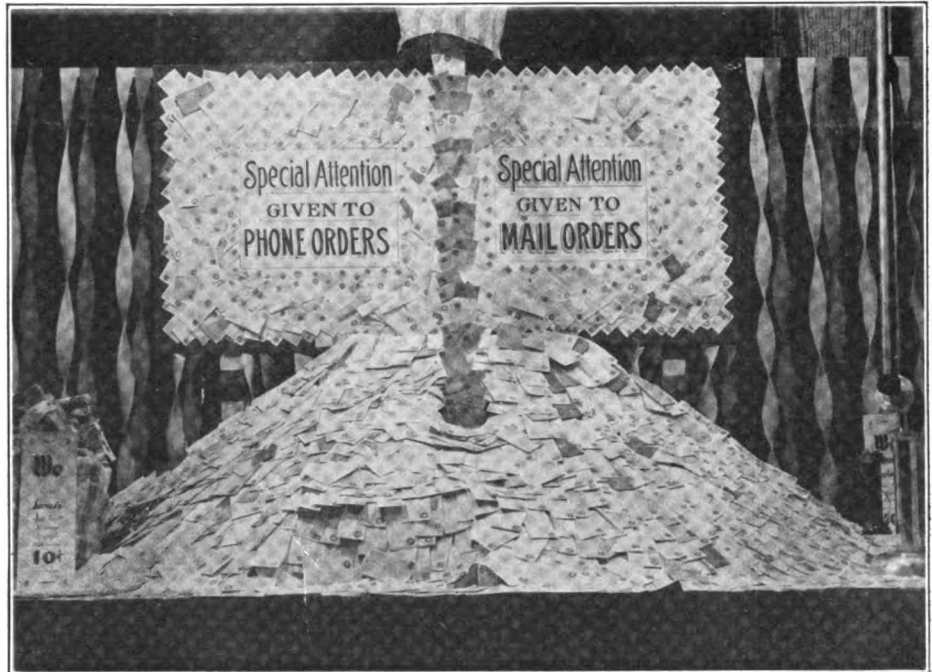
	Trunks.	Terminals.
Chas. H. Buell, attorney (new) ..	2	6
Standard Motor Truck Co. (new) 2	2	6

Roehl Bros., moving and storage (new) ..	2	6
H. M. Fechheimer, printing (new) ..	2	5
J. T. Wing & Co., hardware (new) ..	3	7
Allen S. Lamphere, attorney (new) ..	1	5
Great Lakes Engineering Works (addit.) ..	1	19
Henry B. Lewis, foundry (addit.) ..	2	7
Inter-com. set replaced by ..	2	8
Glaser Restaurant (new) ..	2	8
Linsell Co., int. wood finishers (new) ..	2	6
Detroit Bd. of Commerce (addit.) ..	0	5
Crowley, Milner & Co., department store (addit.) ..	2	5
Detroit Foundry Co. (addit.) ..	1	1
Wayne County Home Savings Bank (addit.) ..	1	1

Of the total of eight new private branch exchange contracts obtained during June, four were secured by Floyd Lockwood, three by Dare S. Burke, and one by Commercial Superintendent G. M. Welch. The new con-

How Good Service Impresses

Our society columns yesterday recorded the fact that Miss Kathleen Dwyer was leaving the service of the Michigan State Telephone Company, where she has been chief operator for the past six years. The society editor, in her own inimitable manner, said some nice things about Miss Dwyer. We could say a lot more. We could tell how Miss Dwyer smoothed our ruffled feelings on more than one occasion and made us feel that we were entirely justified in our complaint, whether we were or not. We could tell how Miss Dwyer helped us out in more than one instance on "rush" messages, which meant a lot to us. We could tell how she rendered us almost invaluable service at election times and that no matter how busy she may have been, she always had time to listen to our "troubles." We sincerely regret her departure, and it is not too much to say that regret will be almost universal in this city. May her "long vacation" be a happy one.—Port Huron (Mich.) Times-Herald.



WINDOW DISPLAY AT HOUGHTON, MICH.

If you look at the accompanying photograph, the chances are that you will associate it with the scenes in a large city. It will hardly occur to you that a window display of this kind would be made in a village of 6,000 inhabitants.

The Portage Lake Hardware Company of Houghton, Michigan, is fortunate in having in its employ Frank Prince, who is able to execute window displays of this type; and it is not the only one that Mr. Prince has turned out. We were especially interested in this one due to the fact that the telephone was mentioned. If this were a motion picture you would see mail orders dropping continuously from the mail pouch above; and if it were the very latest in motion pictures you might hear the tinkle of the telephone bell. The telephone shown in the picture is not the Western Electric Standard which is so common, but is one about two and a half feet high, and as near like the real thing as the tinner's art could make it.

tracts and the "additional" supplied a total of 63 new stations for Detroit during June.

Ordered During July.

	Trunks.	Terminals.
General Ice Delivery Co. (addit.) ..	3	7
Brownlee Co., lumber (new) ..	2	6
Michigan Ammonia Works (new) ..	2	6
Crescent Co., auto starters (new) ..	2	6
F. L. Lowrie Lumber Co. (new) ..	2	6
Detroit Brass Works (addit.) ..	0	10
W. Buckley, apt. house (new) ..	2	76
Brushaber & Sons, furniture (new) ..	2	6
Michigan Ornamental Glass Co. (change from inter-com. set with 1 trunk and 5 terminals to) ..	2	7
Trojan Laundry Co. (addit.) ..	1	4
Hoskins Realty Co. (new) ..	2	6
Crowley, Milner & Co., dept. store (new) ..	1	1

Of the total of eight new private branch exchange contracts obtained during July, five were secured by Floyd H. Lockwood, two by Dare S. Burke and one by Chas. A. Guerlin. The contracts and the "changes" supplied a total of 140 stations for Detroit during July.

Picnic at Cheboygan

Sunday, August 3d, the telephone employees of the Cheboygan exchange woke up bright and early, but, oh, what a disappointment when they discovered that rain drops were falling! But who would stop to consider a few summer showers, when a day of pleasure is in store? Why, they had planned on this day for two long weeks, and just to think of all the "eats" was enough to tempt any one out into the worst of showers. So, promptly at 7:30 a. m., as had been arranged, the crowd of twenty climbed into the big band wagon and were driven over pleasant country roads, until they found themselves on the most delightful beach, Lakeside, on the shores of Lake Huron.

It wasn't long before a large white tent stood in view, and just around the corner was a hammock, not long idle. All were as hungry as picnickers generally are, so while the boys hurried up to the hill to get some butter and cream, the girls busied themselves getting the long-looked-for dinner ready.

When the boys returned everyone found their places and were just nicely seated and ready to eat when one of the company

stepped up with a kodak and suggested getting a picture. It was difficult to wait that long, but it was finally accomplished and in a few minutes everyone was busily engaged. Unfortunately, the kodak pictures turned out unusable for BELL TELEPHONE NEWS.

After dinner all found comfortable, cool spots in the grove. Some occupied the hammock while others found the grass an inviting place to rest, while still others strolled off to gather daisies. But such a listless life would not satisfy such a jolly crowd for any length of time, and it wasn't long after some one suggested bathing before all were happily splashing in the water. The water was warm, and no one minded the water fights or even the occasional ducking. It was all fun. They could hardly stop their frolic long enough to get another snapshot. Again it was time for lunch, but this time everyone gathered around the "serve-self" counter.

When evening came there was a marsh-mallow roast.

The party was ably chaperoned by the manager, E. F. Edson, and wife, who, to say the least, are the jolliest people who ever attempted to fill the capacity of chaperons, in the opinion of the young people.

this is the reason she is collecting cooking recipes, and continually inquiring of friends: "How long should the stew boil?" or "What's the best day in the week to make lemon pie?" On the other hand—left hand, third finger—it may be another reason.

Eastern District

E. N. Hardy succeeds J. P. Hamill as manager at Wyandotte and Trenton. These exchanges have been changed from functional to non-functional.

A new switchboard has been installed at Milan. All the lines have been repaired. The *Milan Independent*, in a recent issue, said: "Mrs. Ivy O'Neal, who has been operator in the local office for years, has, with the inadequate equipment, rendered good service. The new equipment will enable her to deliver still better service."

Ila Gilbert has been reinstated as local operator at Jackson, after being out of service three months.

Mrs. L. Thrasher resigned her position as Jackson toll supervisor, and is keeping house in her new home on Hollis street.

Emma Zenz, formerly local operator at Jackson exchange, was married on the evening of August 5th to John Taylor.

Grand Rapids District

At Kalamazoo, Mich., on July 28th, the local and toll operators held a very enjoyable picnic at Oakwood Park, the "White City" of Kalamazoo. A picnic dinner was enjoyed by all, after which the various amusements were visited. It was discovered that there were many fancy roller skaters among the girls.

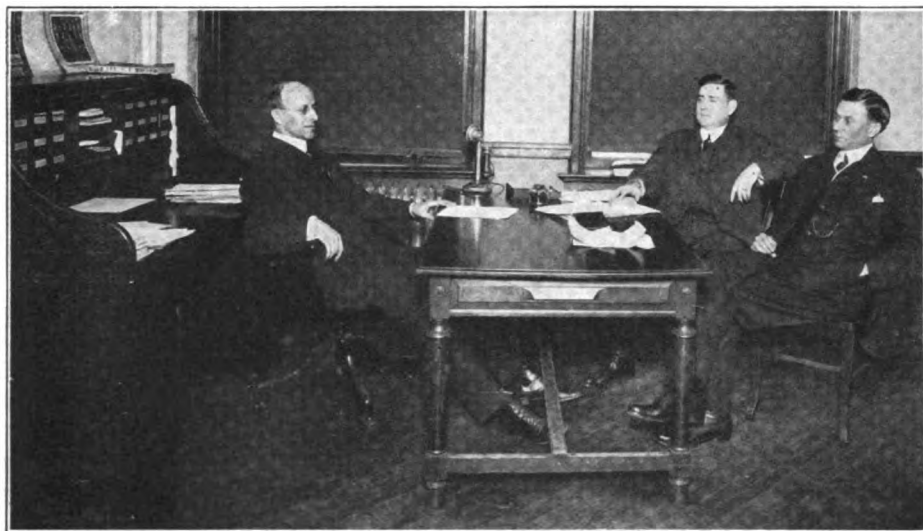
Nellie Currott, long-distance operator, has been doing special duty for the past six weeks at Charlevoix, supervising the summer resort traffic and instructing new operators. Miss Minogue has been doing similar work for several weeks at Kalamazoo, where the traffic is exceptionally heavy and several new operators have been employed.

Petoskey, 'way up in Emmet county, is a summer resort of so great a popularity that preparations must be made to handle the heavy traffic. These precautions are never neglected. We were especially careful this year. Our seventeen operators assembled on Sunday, July 6th, for the purpose of listening to a talk and receiving instruction on matters pertaining to good service, this talk being given by Manager J. J. Kelley. During August and September the traffic over the switchboard is almost double what it is during the other months of the year. Mr. Kelley's talk was supplementary to a recent visit made to the Petoskey office by J. J. Waller, Grand Rapids district traffic chief, who planned the course.

On July 16th operators of the long-distance department of the Grand Rapids exchange enjoyed an outing at Ramona Park, Reed's Lake. Ramona Park is a very complete summer amusement place, where Grand Rapids people flock by the hundreds. Our girls indulged in all of the attractions at the park, and at 6:30 p. m. partook of an excellent picnic dinner. Two days later, July 18th, thirty operators from the Grand Rapids Main Exchange journeyed out to Manhattan Beach, Reed's Lake, where the bathing is fine and the picnic grounds are ideal. They took advantage of everything in sight until 7 p. m., when the picnic dinner was served. Later they all crossed the lake and during the remainder of the evening took in the various places of amusement at Ramona Park. The long-distance girls were in charge of Sadie Neil, toll chief operator, while the girls of the Main Exchange were under the chaperonage of Emma Palmer, chief operator of the Main Exchange.

Fred L. Dunbar, private branch exchange repairman of the Michigan State Telephone Company at Kalamazoo, died July 2d, from internal injuries, suffered in a wreck on the Lake Shore Railroad on June 18th. Mr. Dunbar was on his way from Kalamazoo to Plainwell to repair the switchboard when a work train collided head-on with a passenger train. The internal injuries did not show up until June 22d. He was taken ill very suddenly and only lived eleven days from that time. Mr. Dunbar has been an employee of the Michigan State Telephone Company in Kalamazoo for fourteen years, and was very well liked by all the subscribers who knew him, and by all employees. He was born June 14, 1877. He started to work as lineman in 1899 and worked until 1906. At that time he was promoted to combination repairman, doing cable work and repair work until 1908. In 1908 he was promoted to P. B. X. repairman and held that position until his death. He leaves a widow and three small children.

F. L. Keech succeeds E. A. Jackeway as manager of the Mosely toll station, effective August 1st.



AN ACCOUNTING CONFERENCE AT DETROIT, IN MR. BOYCE'S OFFICE.

The conferees are Plant Superintendent C. L. Boyce and T. R. Keyes, special agent in the office of General Auditor B. S. Garvey, Chicago. On the right is also seen C. E. Gardner, assistant plant superintendent, who came into the office just before the photographer flashed his magnesia, and was not allowed to escape. Mr. Boyce was later asked why the picture was taken, and he said: "Well, I don't know. The photographer was roaming around the building seeking whom he might devour, and he naturally drifted to the corner where the handsomest men were to be found, I suppose. Mr. Keyes had just given a positive ruling on who is who and what is what in accounting, and from the expression on the faces of Mr. Gardner and myself it is evident that his argument was very effective. However, the expression on Mr. Keyes' face indicates that he has just lost a set-back game and was much peeved over the situation." Mr. Keyes, on the other hand, appears to think the picture a great success and says that everybody is delighted to know how Mr. Boyce looked. It is evidently a draw.

Detroit District

Walter I. Mizner, of Chicago, secretary of the five Bell Telephone Companies of the Central Group, spent his vacation in Detroit, greatly to the pleasure of his telephone and other friends here.

George T. Jeffers, of the commercial superintendent's office, began cultivating a mustache, etc., a few days before his vacation, intending to return with his face hidden behind a mass of that kind of luxuriant foliage commonly referred to as spinach. In the meantime another man in the same department calmly began similar operations—with such success that when Mr. Jeffers came back he was so dismayed at his standing in the race that, with one wild sweep of the safety razor, he laid his own labors in the dust.

Alfred Green, who has been a collector for the Michigan State Telephone Company for five years, has just come back from his vacation at Niagara Falls. He was interviewed on his return by a Detroit paper, and said: "I was married at Niagara Falls just thirty-nine years ago today, and when I was down there last week everything looked just about the same. It was the same old hotel and people were telling the same old jokes. In the restaurant windows I saw the same old sandwiches."

One of the stenographers in the commercial superintendent's office, whose window faces the office of the gas company, is confronted daily with advertisements of cook stoves and other domestic delights. Perhaps

Leah Benedict resigned her position as local operator at Jackson July 17th.

Ella Hillard has been transferred from local to night toll operator at Jackson.

Nora Ricks, of Jackson, spent her vacation in Detroit.

Irene Lyon has resigned her position as Jackson toll operator. She will make Chicago her future residence.

Florence McMillan has been transferred from the Jackson exchange to the Otsego Hotel, as private branch exchange operator.

Lillian Stoddard, operator at the Otsego Hotel, spent her vacation in Kalamazoo.

The employees of the traffic and the commercial departments at Jackson have had two enjoyable picnics during the past few weeks.

Harvey Sanwald has been promoted to the position of assistant wire chief at the Jackson exchange, taking the position made vacant by the promotion of Harry Hawley to night wire chief.

Theron Hawes is now stock man at the Jackson exchange.

The Jackson manager, W. L. Stevens, spent a very enjoyable vacation at South Haven, Mich., in July. He was accompanied by Mrs. Stevens, and their daughter, Carolyn.

Wire Chief W. S. Leach, of Mt. Clemens, has been on a few days' fishing trip. Great fish stories are expected by the boys on his return.

Cyril Bogan has taken up his duties as cableman for the Mt. Clemens exchange area.



"THEY WOULD ROW, ROW, ROW."

This is a picture of Mabel Weston, cashier in the office of the commercial superintendent of the Michigan State Telephone Company, taken while she and her sister, Lillian, were spending their vacation at Algonac Lake. Lillian is the rowers; Mabel is the one who is doing the thinking. No one deserves a vacation more than Mabel Weston does, but we can't spare her for more than two weeks, for her work is of too much interest to us all in this office—she makes up the pay-roll!

Marquette District

The Kinross toll station was moved from the old Camp and Morris store to the store of the Kinross Mercantile Company, June 15th.

George Grabowsky succeeds F. W. Hunt as manager at Ingallston toll station, as of July 1, 1913.

Danver toll station, three miles west of Laketon, has been closed, as the Lake Superior Iron and Chemical Company, the only user, has discontinued operations in this district.

A. P. Farrell succeeded Clara Anderson as manager of the Hardwood toll station, August 1st.

Saginaw District

H. C. Hubbard succeeds J. H. Owen as manager of the Vestaburg toll station, effective July 1st.

The Kawkawlin toll station, Bay County, has been discontinued. Kawkawlin should now be listed in the tariff book as "Check Bay City."

The toll station at Beaver Lake was discontinued June 11th. Service cannot be furnished from any other point.

Effective July 1st the management of Frankenmuth exchange was transferred from Emma Boesnecker to C. C. Corey.

Effective July 1st, Helen Seltz, chief operator at Bay City, was transferred to Port Huron as chief operator, taking the place of Miss Dwyer, who resigned to be married. Miss Dwyer had for twelve years been in the employ of the Michigan State Telephone company at Port Huron, coming up through the ranks of operator to become chief operator. Miss Dwyer's service has not only been long, but it has been most trustworthy and efficient. Miss Ferry, assistant chief operator at Flint, was transferred to Bay City as chief operator, and Miss Reddy, clerk at Flint, was transferred to the position of assistant chief operator.

On August 5th, a traffic conference was held at Clare at which the toll operating methods, local operating methods and traffic matters in general were discussed. Those present were: Miss Bolan, chief operator at Beaverton; Miss Hanel, chief operator at Mt. Pleasant; Miss Tibbles, chief operator at Clare; A. J. Peckham, district traffic chief at Saginaw; S. E. Francis, exchange area manager at Mt. Pleasant; and F. W. Broderick, local manager at Clare.

Special Agents W. I. Ward and E. N. Hardy have recently completed canvasses at Carsonville and St. Clair. At the former place twenty-eight contracts were secured and seventy at the latter.

After a lingering illness Theresa Bingham, toll supervisor at Port Huron, died July 12th.

Effie McIntosh, operator at Crosswell, spent a recent Sunday with Jessie Medley, operator at Port Huron.

Helena Graff has resumed her position as toll operator at Port Huron after spending her vacation with friends in Saginaw.

Adah Parker has accepted a position as toll operator at Port Huron.

Blanche Marks, toll operator at Port Huron, spent a recent week in Detroit on her vacation.

Gertrude Outwater, toll operator at Port Huron, has been promoted to assistant chief operator.

Myra English, local operator at Lapeer, resigned August 1st and was married to Warren Webster of Attica, Mich., August 6th.

Edward Nickerson, manager of the Lum Exchange, resigned on July 18. William Dixon was appointed manager.

Lois Begle, cashier of the Lapeer Exchange, resigned August 7th to resume teaching school. Helen Hull has accepted the position of cashier of the Lapeer Exchange, caused by the resignation of Miss Begle.

July 1st the Lapeer Exchange was made a Class 10-A office of the Western Union Telegraph Company, with H. A. Backus of the Telephone Company, as joint manager of both offices and Mrs. Ida Riley, the former Western Union manager, as operator and bookkeeper.

Roadway Company Notes

A contract has been signed with the Walters Roadway Company to connect with the West Branch exchange, as of July 1st, with twelve subscribers.

Illinois Division

**A. J. Parsons, Correspondent,
Springfield**

Appreciation from Canton

Mr. R. E. Jackson, Manager,
Central Union Telephone Co.,
Canton, Ill.

Dear Sir:

I desire to express to you our appreciation of your extreme courtesy in installing the telephone in the "Rest Tent" at the Canton Chautauqua Grounds during the recent Assembly. This "Rest Tent," which was

ceived in a fall from a twenty-five foot guy stub.

Two new sections of No. 8 switchboard are being installed at Centralia. Work is being performed by the Western Electric Company.

Carl G. Seytter, district traffic chief, and Eva Mae Vaughn, daughter of Mr. and Mrs. Richard Vaughn, of Centralia, were married June 1st at the home of the bride. Mr. and Mrs. Seytter spent the month of June at different points in Indiana.

The Commercial Telephone & Telegraph Company has completed its new exchange at Salem, Ill., and all subscribers' stations will be placed in service September 1st. The Central Union Company will establish toll connections.

Paul Ramer, former plant chief at Cairo, has been transferred to Beardstown. R. L.



BELL PLANT AND WESTERN ELECTRIC MEN AT KALAMAZOO, MICH.

The above picture shows part of the Michigan State Telephone Company repair and construction department men at Kalamazoo, together with the Western Electric and equipment men, who are installing the new switchboard and test panels at the Kalamazoo exchange. The Western Electric Company is installing three new sections of local switchboard and raising the top of the present switchboard, in order to take care of additional multiple lines. Two local and one toll test panels are being installed to handle local and toll repairs.

Reading from left to right, first row: Bill Taylor, David Reed, George Ruthmuller, Joe Barrett, W. H. Pearl, Jim Moon, Bert MacGregor, Frank Jones and Glen Lee. Second row: Fred Kline, George Cole, "Dod" Hayes, H. E. Martin, J. E. Dykstra, Roy Conway, Frank Dykstra, George Wilson and A. Bresley. Third row: Floyd Joy, Harley Ferguson and Scott Irwin. Fourth row: Roy Hayes, James Ledwick, Roy Duke, W. Pease and Lynn L. Lukins. Top row: Dick Brown, E. Priestly and O. A. Russell.

provided by our bank for the convenience of the general public, and especially out-of-town visitors, was certainly appreciated by a large number of visitors, and we heard many expressions of gratitude over the conveniences and facilities afforded therein; among the chief of these was the telephone you installed, so you have earned the deep gratitude of both the public and ourselves.

With many thanks in behalf of the public and the management of this bank, I beg to remain, yours very truly,

(Signed)

E. A. HEALD,
Vice president.

Centralia District

Foreman E. J. White, who is handling a number of toll line and exchange estimates in the Centralia District, has just completed re-building toll pole lines between Centralia and Sandoval Junction, and Sandoval Junction and Trenton. The toll pole line between Centralia and Salem has also been rebuilt and a new circuit strung between these two points. A new No. 9 iron circuit also has been strung between Salem and Kimmundy, giving the Central Union Company its first direct connection with the latter point.

Charles Applegate, a lineman, who was in the service of the Central Union Company at Cairo for more than five years, died on July 14th from the effects of injuries re-

Dickerson, formerly wagon foreman at Centralia, succeeds Mr. Ramer at Cairo.

Anna Perce, formerly pay station attendant at Cairo, has been made cashier in the commercial department.

Cora Meyer, clerk to the manager at Centralia, resigned her position July 1st and was succeeded by Irene Lambrecht, former toll clerk.

The district and local commercial offices at Centralia moved into their new quarters at 215 East Broadway, July 1st. The district plant and traffic departments now occupy the quarters formerly occupied by the commercial department in the exchange building.

The Class 10-A Western Union Office was opened at Centralia on July 1st. The position of Morse operator is filled by R. O. Kelley, formerly in the Western Union commercial office at Decatur.

L. N. Harris, formerly chief clerk in the district commercial office at Centralia, and later chief clerk to the district plant chief at Alton, was transferred to Centralia on July 1st to take the position of commercial agent.

Champaign District

F. M. Sidenstricker has taken the position of clerk to Plant Chief Hart, succeeding Cecil A. Howell, resigned.

Miss M. Capps, traffic chief, attended a traffic chiefs' meeting at Peoria, July 25.

Elsie Knox, chief clerk to the manager, is

seriously ill in the Burnham Hospital with typhoid fever.

Employees of the Central Union Telephone Company gave a picnic at Homer Park on the evening of July 10th. An elegant supper was served and then everybody enjoyed themselves to a late hour in dancing, swinging and boat riding. Everybody had such a delightful time that it is planned to give one of these picnics every month during the summer.

Contracts have been secured from the Illinois Traction System for a No. 4 private branch exchange of three trunks and twenty-three stations for the company in its new office building.

Decatur District

Lillian Roberts, formerly toll operator at Decatur, has returned to her home in Iowa. Mr. and Mrs. Charles B. Warner, wire and traffic chiefs, respectively, at Decatur, are spending a month's vacation at Detroit and Niagara Falls.

Margaret Ryan, stenographer in the commercial department, has returned from a week's vacation at Kankakee and Chicago.

Ella McMillin, pay-station attendant, spent her vacation in Champaign, Ill.

Nellie Frederick, toll supervisor, has returned from a week's vacation spent in Chicago.

Rose Willis has resumed her duties as toll operator after spending a week's vacation in Muncie, Ind.

Marie Burchard, local supervisor at Decatur, was transferred to the position of night chief operator August 1st, succeeding Burda Murphy, resigned.

Galesburg District

Eva Strickland and Irene Martin, local operators at Galesburg, have returned after a two weeks' vacation.

Ruth Gilbert, toll operator at Galesburg, spent her vacation in Rock Island.

Maida Olson, supervisor, enjoyed her vacation in Kewanee.

C. J. Ranney, commercial agent, has been absent on account of sickness.

J. H. Dunn has taken a position as commercial agent at Galesburg.

District Plant Chief Conaty has received a new switchboard and office furniture for the Bushnell exchange and is busy getting the board placed in service.

"Dick," the handsome black horse that has worked on the drop wagon at the Galesburg exchange during the past two years, got loose in the stable one night and another horse kicked him, breaking his leg. It was necessary to kill him. All the employees regret the accident, as "Dick" was a favorite among them.

W. C. Shields, repairman at Galesburg, has been transferred to Kewanee, taking the position of wire chief.

On Saturday, July 26th, a traffic meeting was held in Galesburg, chief operators from Galesburg, Kewanee, Galva, Toulon, Macomb, Bushnell, Monmouth and Oquawka being present. T. M. Bradford, traffic supervisor, of Chicago, had charge of the meeting. The new tariff schedule was one of the main subjects under discussion.

Kankakee District

The new joint commercial and Western Union office at Pontiac was occupied August 15th, the commercial department moving in first. The location is first-class and the office has been equipped with the latest in modern office furniture and fixtures. Manager Baer cannot half express his appreciation of his new surroundings.

The position of plant chief was recently established at Pontiac, with L. G. England in charge. Mr. England is succeeded as wire chief by Inspector Joseph Chamberlain.

The Commercial Campaign in Kankakee is very effective. During July, 160 contracts were secured and a net gain of ninety-four subscribers was made. The plant department is kept on the jump, so numerous are the installation orders.

F. H. Ashby, formerly advertising manager for the David Bradley Manufacturing Company, and more recently a commercial agent in Kankakee, has accepted the position of clerk to District Plant Chief William Geckler Jr., succeeding Clarence Vaughn June 16th. Mr. Vaughn is now located at his home, Centralia, Ill., where he has a position with District Plant Chief Wallace.

An estimate on farmer-line construction under Foreman Radcliffe was begun on August 5th at Grant Park, and will be completed about November 1st.

La Salle District

Operators and office employees of LaSalle gave a moonlight excursion on the new Steamer *Vernie Swain*, Tuesday, August 5th. About 1,400 persons attended. The boat left at 8 p. m., returning at 11. Every person

as he entered the boat was presented with a souvenir blue bell. Manager Atkins, who has given an excursion of this kind ever since being in LaSalle, this time turned the entire matter and management over to the girls. They did exceedingly well. Nothing to mar the occasion occurred during the entire trip.

Paris District

Lucille Green, local operator, resigned her position at Paris and has accepted a similar position at Decatur. Ella Thomas succeeds Miss Green.

Jennie Henson, of Paris, spent her vacation in the country.

Maude Beam, chief operator, attended the traffic meeting at Centralia.

Peoria District

The operators at Peoria gave their sixth annual excursion on July 18th. The excursion was given on the Steamer *Sidney*, which is one of the best equipped excursion boats on the Illinois River. Two trips were made, one in the afternoon and one in the evening, in order to afford all employees the opportunity of attending. On the evening trip, the boat left promptly at 8:15 and returned

Quincy District

Quincy exchange secured during the last month contracts for thirteen private branch exchanges in the following places:

	Trunks.	Stations.
Wood Hotel	2	31
Park Hotel	2	31
Moecker Hotel	2	31
Hasse Hotel	1	31
Dick Bros. Brewing Co.	2	8
Ruff Bros. Co.	2	6
Otis Elevator Co.	2	9
Electric Wheel Works.	2	11
Comstock Castle Stove Co.	1	6
Aldo Sommers	2	7
Koenig & Luhrs Wagon Co.	1	6
Quincy Show Case Co.	2	8

The consolidation of the Central Union and Quincy Home Telephone Companies took effect August 23rd. The cut-over has been a very complicated and difficult job on account of the plant being practically rebuilt, both outside and in, and 2,800 subscribers changed from four and eight-party lines to two-party lines, which caused a great amount of rearranging, changing of numbers, etc. The weather conditions during the last month was very unfavorable, being so extremely hot that it has been a hard task on everyone connected with the work. E. F.



TELEPHONE WINDOW DISPLAY IN THE STORE OF BATTLES AND COMPANY, ROCK ISLAND, ILL.

at 11:30. It was an ideal night for the excursion and the beautiful scenery of the Illinois was indeed picturesque on this moonlight night. Over 1,600 tickets were sold and there were 1,450 people on board on the evening trip. Dancing was the amusement and every one had an enjoyable time. Employees were present from Springfield, Bloomington and near-by towns. The operators cleared \$326, part of which was used in entertaining all of the employees with a chicken supper at Webb's Farm, near Moss-ville, on July 27th and 28th. Special cars were furnished through the courtesy of Superintendent R. W. Bailey, of the Peoria Railway Company, conveying the employees to the city limits, where they were met by hay racks and thus conveyed to the Webb Farm. Chicken was served in great abundance and District Plant Chief T. E. Keltner carried off the prize for the largest appetite.

Mamie Kerker, has resigned as clerk in the commercial department at Peoria to take a position as private exchange operator with the Clark-Smith Hardware Company.

Roscoe Walls, collector at Peoria, has been granted a leave of absence of about two months to go west for the benefit of his health.

The work of installing a new five-section B board and information desk has been started at Peoria. The work is being done by the Western Electric Company.

Elizabeth Speck and Mary King, of the traffic department, Peoria, resigned July 1st, to be married.

The recommendation has been approved for an addition of one local operator at Lewistown, effective August 1st. The position will be filled by Carrie Tufts.

Central Union employees at Bloomington held a picnic at Miller Park on July 16th, and all had an enjoyable time.

Miss Keenan, traffic chief at Bloomington, has returned from her vacation.

Morrill and C. H. Champion have been in charge and deserve very much credit for the way they have handled the men and work under such trying circumstances. Mr. Morrill always maintained his genial smile with the temperature showing from 100 to 108 and everyone around working under a forced pressure and ready to explode at any minute. Mr. Champion also maintained his good humor under a load of trouble of the most trying kind, and he certainly deserves great credit for carrying the work through successfully. Everyone in connection with the work is glad that the hard part is all over and they now know it is only a matter of straightening and cleaning up. The work can be continued at a little less strain.

The Central Union Telephone Company has purchased the Adams County Telephone Company, which comprises one small exchange and farmer lines covering Adams County. This completes the consolidation of all telephone companies into one system in the vicinity of Quincy.

Rockford District

Monday afternoon, July 28th, a chief operators' meeting was held at Rockford. Representatives were present from Freeport, Savanna, Rochelle, DeKalb, Lanark, Dixon, Galena and Rockford. The business meeting, held in the operators' rest room, was presided over by T. M. Bradford, traffic supervisor, of Chicago, who explained in detail the new toll rate book and the new form of toll ticket which have been adopted. After the business meeting a social session was held. The visitors were taken through the exchange and were very much impressed by the extensiveness of the work being done. Pearl Apitz, directory-clerk at Rockford, enjoyed her vacation in the south.

Seven of Rockford's toll operators entertained at a picnic supper in honor of the

Misses Miller and Stansbury, operators from Galesburg, who have recently been working in Rockford.

Messrs. M. McMarren, switchboardman, H. Upton, tolltestman, Ted Winters, construction foreman, and W. E. Kelly, line foreman, all of the Rockford force, have been spending the summer months in camp on Rock River. The picture taken at their camp looks as if they were enjoying solid comfort.

On July 19th a plant meeting was held at the Hotel Nelson, Rockford. Those in conference were H. B. Lewis, plant superintendent, Mr. Rouston of the plant superintendent's office, Chicago, and the following district plant chiefs: E. Lewis Mitchell, Moline; W. H. Houston, LaSalle; James Conaty, Galesburg; T. E. Keltner, Peoria; C. W. Blunn, Springfield; S. P. Gable, Decatur; E. A. Hart, Champaign; William Geckler, Kankakee; R. D. Wallace, Centralia; W. L. Parrish, Paris; J. C. Miller, Jacksonville; A.

Goods Company, three trunks, fifteen stations.

Martha Wanke and Bessie Schael, local operators at Rock Island, entertained their fellow-workers with a chicken dinner at their camp on Campbell's Island. After dinner dancing was enjoyed.

On Monday, July 28th, the Moline operators gave their annual boat excursion on the Steamer *Sidney*. Dancing was the principal feature of the evening. From the proceeds the operators will rent a summer cottage at Campbell's Island and will maintain a camp there for two weeks.

The commercial and traffic office forces of Rock Island enjoyed each other's company at a picnic at Watch Tower Gardens on Tuesday, July 29th.

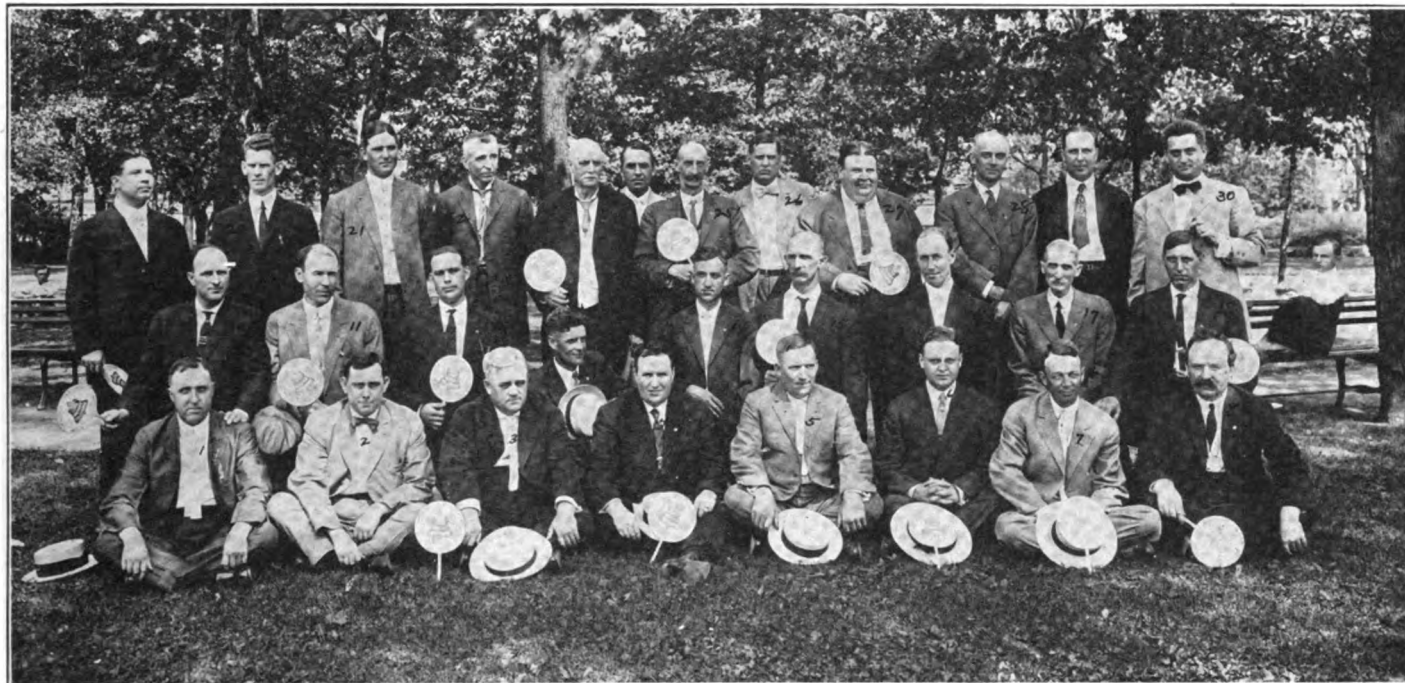
Fifteen of the evening force of Rock Island gave a "stag" picnic at Long View on Wednesday afternoon. Prizes for fancy

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Managers' Meeting

A managers' meeting was held at the Main Building, Indianapolis, on July 29th and 30th. The managers included in this meeting were those in charge of the "non-functional" exchanges. The purpose was to impress upon these managers their responsibilities under all three functions and discuss and answer questions concerning the results that had been accomplished since a similar meeting held in March. At this meeting, held in the spring, the general questions of how to improve net revenues



MANAGERS OF INDIANA "NON-FUNCTIONAL" EXCHANGES IN CONFERENCE IN INDIANAPOLIS.

1, D. Finical, Manager at Vincennes; 2, J. P. Hays, District Traffic Chief, Northern District; 3, S. E. Van Fleet, Manager at Auburn; 4, C. R. Bebee, Manager at Peru; 5, E. L. Hamlin, District Plant Chief, Southern District; 6, C. L. Sawyer, District Traffic Chief, Southern District; 7, B. D. Wilber, Engineer; 10, G. W. Dyke, Manager at Washington; 11, A. B. Porter, Manager at Elwood; 12, Paul Higman, Manager at Bedford; 13, W. D. Dalrymple, Manager at Culver; 14, B. B. Early, Manager at Shelbyville; 15, Clyde Maddox, Manager at Gas City; 16, F. D. Ree, Manager at Greenwood; 17, C. Severson, Manager at Crawfordsville; 19, A. E. Smith, Manager at Frankfort; 21, B. G. Halstead, District Plant Chief, Northern District; 22, A. R. Otis, Manager at Kendallville; 23, N. H. Hutton, Manager at Richmond; 24, W. R. Hirst, Plant Superintendent; 25, E. L. Taylor, Manager at Ft. Wayne; 26, C. M. Nesbitt, District Commercial Manager, Northern District; 27, J. L. Wayne, Traffic Superintendent; 28, J. W. Stickney, Commercial Superintendent; 29, L. L. Monticue, Manager at New Castle; 30, Frank Wampler, District Commercial Manager, Southern District.



CAMP NEAR ROCKFORD, ILL.

B. Singer, Alton; E. Flowers, Quincy, and A. N. Huckins, Rockford.

Mary Burke, collector at Rockford, spent her vacation in camp at The Dells of Wisconsin.

Rock Island District

The Rock Island commercial department has secured private branch exchange contracts as follows: Colonial Hotel, ninety stations; Rock Island House, seventy-five stations; Hartz & Bahnsen's Wholesale Dry

dancing were won by Ruth York and Florence Lund.

The marriage of Esther Peterson, senior supervisor at Rock Island, to Will Anderson, took place in August. Mr. and Mrs. Anderson will reside in Birmingham, Ala., where Mr. Anderson will be manager of the Velle Motor Company's branch house.

Lillie Smith, district instructor, of Peoria, who assisted the Rock Island district for two weeks, has returned to her home in Peoria. Miss Smith made many friends during her short stay.

Springfield District

Lillie Hall, chief toll operator, spent a week at Akron, Ohio, and went from there to Pittsburgh, Pa., to attend a family reunion.

Ella Boyle, night toll operator, spent her vacation in Chicago.

Ruth Baker, local supervisor, spent her vacation in Peoria.

Jennie Pellatt, matron, spent her vacation in Chicago.

Agnes Keefe, local supervisor, spent her vacation in Chicago.

The commercial department at Springfield delivered a new directory to the subscribers on July 31st. The delivery was accomplished in one day. On pages 16 and 17 of this issue is printed a picture taken on the morning of the delivery showing the outfit which did the work.

were very thoroughly gone over, together with an explanation to the managers of the system of accounting and the nature of reports by which their work would be judged. At this recent meeting a very active discussion by the managers was indulged in and a particularly lively interest in the financial statements and the facts that they developed was shown.

The weather being very warm, certain social features accompanied the business for which this meeting was called. On the first day the business session lasted only until noon. In the afternoon the managers were entertained with an automobile ride and at a ball game. In the evening they were all taken into the country for a chicken dinner.

On the second day it was intended that the session should only last until noon, but the managers evidenced such a lively interest in the discussions that at their request the meeting was extended throughout the afternoon. It finally adjourned about 5 o'clock. This meeting proved to be the most successful one that has been held in this State for a long time. L. N. Whitney, general manager, was present and gave to the managers a cordial greeting and a very interesting talk on the general status of the affairs of the company in this State, as well as leading in the general discussions. Discussions concerning topics closely allied with the different departments were led by J. W. Stickney, commercial superintendent; W. R. Hirst, plant superintendent; and J. Lloyd Wayne, traffic superintendent.

Division Offices.

The exchange rates of all Indiana exchanges were filed with the Indiana Public Service Commission on July 31st, in compliance with the public utility law, and copies are being prepared for the use of managers and will be sent out as soon as the work can be done.

L. J. McMasters has been acting as temporary plant superintendent during the absence of Plant Superintendent Hirst. Mr. McMasters readily waked up to the fact that the plant superintendent has to "go some." Unit costs, maintenance, comparisons, new construction work, keeping up installations and centralized accounting are some of the "trimmings" that go with his new job.

A. R. Henry, division cashier, is having his innings now. The traveling auditor stopped in to check him up, and found his desk covered with surgical tubes and medical dictionaries, making it look like some sort of a laboratory. When asked what they were for Mr. Henry replied that he was getting ready for a committee meeting of the Benefit Fund. While he is chief clerk to the general manager, division cashier, paymaster and secretary of the committee, ninety-nine per cent. of his time seems to be devoted to the committee.

G. C. Brooks left on August 15th for his vacation and drove through to New York in his automobile.

July, 1913, has been the hottest month in many years in Indiana. With all of this extremely hot weather, the service in general has been good, and the operators throughout the state are to be commended for the work they have done under such difficulties.

Effective August 1st the salaries of all managers at non-functional exchanges will be pro-rated equally to the commercial plant and traffic departments. They should therefore feel equal responsibility to all departments.

W. T. (Pop) Allen has returned from a two weeks' vacation spent in the woods of southeastern Indiana.

Plant Superintendent W. R. Hirst spent his vacation at Clear Lake, near Wray, Ind., which is at the corner of Indiana, Ohio and Michigan. It was said that he chose this location in order to be able to dodge in three directions to avoid getting into the details of centralized plant accounting.

Commercial Superintendent J. W. Stickney left with his family August 9th to spend a vacation at Litchfield, Conn. This is Mr.

Stickney's first vacation in four years, and it is whispered that he wanted to get as far away as possible from centralized accounting worries.



ASSISTANT MATRON AND STUDENTS
AT INDIANAPOLIS.

These are the young ladies who "waited table" at the managers' conference, July 29th and 30th. The proceeds of the managers' luncheons went to the "Sympathy Saturday" funds for the Summer Mission.

Central District

Operators of the Prospect office, Indianapolis, gave a trolley party Wednesday evening, July 2d, proceeds for the benefit of the Summer Mission. Refreshments were sold and a very enjoyable evening was spent.

Emma Woelfert, clerk of the Prospect office, has returned from a house party at Blue Bluff, Ind.

Operators of the Irvington office were invited to a miscellaneous shower August 14th, given in honor of Elsie Wright, whose marriage to Milton Tyner will occur in September.

Clara Judkins, of the Irvington office, spent the last week of August with relatives in Madison, Ind.

On July 24th the operators of the Belmont office were entertained by Misses Julia and Florence Bogren at their home. The evening was spent in dancing.

A theater party was given by the Belmont operators in honor of Kathryn Scanlon, the occasion being her birthday anniversary.

Mary Barrett, one of the Belmont operators, spent the month of August at Lake Geneva for the benefit of her health.

Leona Noble, operator at Woodruff, spent her vacation at Benton Harbor, Mich.

Nellie Barber, assistant chief operator of the Woodruff office, has returned from a visit with friends in Chicago.

Bernice Putnam, accompanied by her sister Kathryn, spent two weeks in Detroit, visiting relatives.

Pauline Stanley, North operator, has returned from a visit with friends in Louisville, Ky.

Mabel Raymond, North operator, has returned from a month's leave of absence, spent in Cloverdale, Ind.

Catherine Adamson, North operator, spent a week with friends in Chicago.

Octavia Stephens, of the district traffic chief's office, spent the last two weeks of the month of August at her old home in Tennessee.

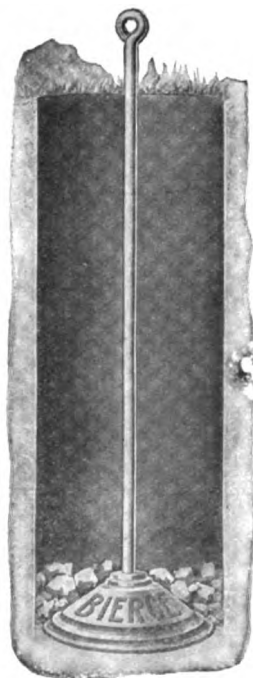
On the evening of July 31st, the operators of the toll room and other friends gave a shower in honor of Mrs. Lola Starry Barnett, whose marriage occurred in June. Mrs. Barnett was the recipient of a number of beautiful and useful gifts.

Florence Everson, one of the supervisors of the Main office, resigned August 1st to be married to Max Parker on Saturday, August 9th. A party was given in her honor by a number of the employees in the Main office on Tuesday, August 12th. A cut glass water set was presented to her.

Elsie Buser, operator of the Main office, is to be married to Frank Reinhart. A shower was given in her honor Tuesday, August 5th, by friends from the Main office.

The Indiana Inspection Bureau has installed a private branch exchange of one trunk and five stations.

For Better Service



Tie With "Bierce" Anchors

They can't creep, even if you wanted them to. The inverted wedge—and crushed stone prevent it.

No guess work—in fact scarcely any work at all.

No expanding, twisting or screwing—all done in full view.

It's a one man—one piece article.

The Bell System Uses It

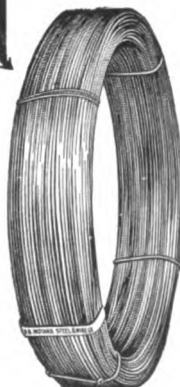
Manufactured by
SPECIALTY DEVICE CO.
112 W. 3rd St., CINCINNATI

For Sale by
WESTERN ELECTRIC CO.
AND OTHERS

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.

Write for FREE SAMPLE Make Test and Comparison



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



SEE HERE

Order today and see the lines of this Circular Skirt Apron. Practically demonstrated in Chicago offices.

This Apron is made of high quality black sateen—covers over all.

All waist sizes, 20 to 30 inches.

Our Circular Skirt Apron is a delight to the wearer. Something absolutely new.

Sold at a demonstrating price of 75 cents each. By parcel post prepaid to all parts of Chicago and of the United States and Canada.

As another inducement we make a combination offer of 12 Carmen Hair Nets of any color, also one Circular Skirt Apron, for \$1. Mail your order today.

Chas. Schiff Specialty Co.
423-425 W. 63rd St., CHICAGO



For
reliable
magneto
telephone
service



Western Electric

No. 1317 TYPE TELEPHONE SETS
are without an equal.

Talking and signaling apparatus is the same as that used in the telephones operated over your lines.

You, Mr. Manager, can better service conditions in your territory by persuading your friends in other companies to use these efficient telephones exclusively.

They always talk well!

Western Electric Company



OUTING PARTY GIVEN BY PRESIDENT HUTCHINSON, OF MERCHANTS' MUTUAL TELEPHONE COMPANY, MICHIGAN CITY, IND.

1, W. B. Hutchinson, president; 2, N. A. Seward, manager; 3, Margaret Seimetz, clerk; 4, Bertha Lay, toll clerk; 5, Elizabeth Seimetz, collector; 6, Ellen Lindquist, night chief operator; 7, Mabel Hampton, toll operator; 8, Eulalia McCarthy, local operator; 9, Blanch Smith, local operator; 10, Edna Sorge, local operator; 11, Lellah Tasker, local operator; 12, Florence Dizard, local operator; 13, Susan Nolan, local operator; 14, Madelyne Luchtman, local operator.

District Traffic Chief Hays was discovered the other day in the Main building hallway mournfully exhibiting the broken ends of his beautiful "Bristol" and endeavoring to convince a circle of fellow employees that it was not a snag or a tub but a real fish which did the job. Mr. Hays has been spending his vacation at Tippecanoe Lake at his favorite sport, but the broken rod is all he

has to show for it. He says the rest is in the live box.

Arrangements have been made by District Traffic Chief Green to have the lectures of Dr. Doty which have been appearing in the BELL TELEPHONE NEWS studied in connection with the operators' school at the Main Exchange.

Northern District

On July 17th, J. L. Wayne, traffic superintendent, visited South Bend. Traffic Chief E. O. Fifer called a meeting of the operators, one in the morning and one in the evening, in order that all could participate in the discussions, which were devoted to general matters concerning the welfare of the operators. Mr. Wayne talked to the operators a few minutes, emphasizing the value of imagination and originality in their work.

Esther Bevan, clerk at Anderson, spent two weeks with relatives in Logansport.

The switchboard at Auburn has been remodeled.

B. J. Halstead, district plant chief for the Northern District, A. W. Mann, of the plant department, and B. B. Early, manager at Shelbyville, spent their vacations together at Lake Maxinkuckee. Manager Dalrymple, of Culver, with some of the plant men, own a motor boat, *Distress*. It seems that most of the time it is in distress. The owner of the cottage where Mr. Halstead lived while at Culver remarked one morning that she had seen them starting on an early fishing trip about 4 o'clock. It was the good ship *Distress* just getting in from J. W. Dant's entertainment the night before.

C. E. Lee, manager at Anderson, spent his vacation taking a boat trip from Cleveland, Ohio, via the Thousand Islands and Buffalo, going to New York and Boston before his return. He telegraphed the boys from Buffalo that he was stopping at one of the finest hotels, and that "Home was nothing like this."

Pan Jay and W. H. Turner, of the Citizens' Telephone Company, of Kokomo, are said to be such enthusiastic gold fish fans that President Stephen Tudor is thinking of hiring other help until the hatching season is over.

H. E. Wilder, secretary of the Home Telephone Company at Angola, Ind., is figuring on new equipment and outside facilities at Angola, and has had one of the Central Union engineers at Angola, making plans.

William Pogue, general manager of the Columbia City Telephone Company, has moved out to his cottage on the lake for the summer and is entertaining R. A. Barnard, of the Western Electric Company, and his family.

A. J. Gitchell has been transferred from private exchange repairman to chief inspector at Elwood.



CAMP OF MANAGER EARL TALBOTT, OF NEW HOME TELEPHONE COMPANY NEAR LINTON, IND.

John Phillips, for several years wire chief at Richmond, has been transferred to the position of wire chief at the old Central Union office at Peru.

B. B. Early, manager at Shelbyville, has been on the sick list since his vacation. He took a severe cold, which resulted in congestion of the lungs. He is, however, recuperating, and will be O. K. in a short time.

Webb DeVor has been transferred from district foreman for the Northern District to foreman in the construction department.

Plans are being made for the rebuilding of a considerable portion of the outside plant at Peru, which was purchased from the Peru Home Telephone Company in September, last year. Much work must be done on this plant to place it in a proper condition to satisfactorily fit into the Central Union plant.

George Holmes, Jr., chief clerk to the district plant chief of the Northern District,

phone Company, with Mrs. Hutchinson, gave one of the most enjoyable outings ever attended by telephone employees of Michigan City. Leaving Michigan City in the new private yacht *Gretchen* at 2:30 p. m., they took a ride up through Lake Michigan to various points of interest, returning at 6 o'clock. Mr. Hutchinson invited C. M. Nesbitt, district commercial manager of the Central Union Telephone Company, to accompany the party on this trip. Mr. Nesbitt expressed his only regret that he cannot reside in Michigan City and enjoy a number of these outings. The class of work done by the clerks and operators at the Michigan City exchange shows their loyalty to the management and the officers of the company. Mr. Hutchinson showed his appreciation by giving the outing.

The new toll board at New Castle has been cut in service. As a result of providing more toll positions, it was necessary to secure additional operators. Goldie Smith, service inspector, has been in New Castle for past thirty days training these new students. Toll business at Anderson and Muncie has increased to a point where extra operators are required to handle the loads.

Southern District

Ten Terre Haute Bell employees have been given fire badges by the city. They will work with the firemen toward saving cables and eliminating danger from live wires.

Linden has been made an 11-B Western Union office, reporting to Crawfordsville.

Manager Shoemaker, of Bloomington, spent two weeks at Trinity Springs, Ind.

Foreman S. L. Butler, at Washington, is working on estimates as follows: New pole line and copper circuit connecting with the Cumberland Telephone & Telegraph Company at White River, via Petersburg; replacing toll pole line and circuits north to Plainville; rebuilding two former subscribers' pole lines a distance of six miles.

On August 6th, a fire at Terre Haute burned about 110 feet of 200-pair cable. Cableman Chambers, assisted by Assistant Cableman Thompson, was on the job immediately and within a few hours all the subscribers were working.

S. G. Huncilman has been appointed manager at Brooklyn, succeeding G. W. Dyke. Mr. Huncilman was formerly with the commercial department at Terre Haute.

Plant Chief F. W. Rolan and family camped in Forest Park, just north of Terre Haute. Aside from a strenuous time getting the camp located, they had a great vacation.

L. Roy Smart has resigned as toll wire

chief at Vincennes, and has been succeeded by C. Hill.

On account of considerable changes in location, widening and grading public highways near Crawfordsville, Manager Severson has lately been very busy and put to a large expense in moving and changing toll lines.

An estimate has been approved for Bloomington, covering extensive replacements and additions to the outside plant. This work has been assigned to the construction department and will be commenced as soon as material is on the ground.

The Vincennes exchange recently completed the installation of a No. 2 private branch exchange with eight stations in the new Y. M. C. A. building.

The exchange building at Clinton, Ind., belonging to the Indiana Telephone & Telegraph Company, has been redecorated throughout and linoleum placed in the halls.

The construction department has completed the rebuilding of the toll lines and new circuits between Frankfort and Lebanon. This work was handled by Foreman Downing.

A new copper circuit and phantom have been completed between Terre Haute and Linton, under the direction of Foreman Jackson, of the construction department.

The toll lines on the Vincennes board have been re-arranged, in order to handle more efficiently the increased toll business resulting from the melon season.

A service observation board has been completed at Terre Haute, the installation being handled by the Western Electric Company.

The rebuilding and combining of the outside plants at Bedford has been completed by Foreman Butler of the construction department.

The Main street bridge at Lafayette across the Wabash River is to be replaced by a concrete bridge. This will necessitate erecting cables over the Brown street bridge to West Lafayette.

Manager and Mrs. F. H. Kissling, of Terre Haute, gave a party in the rest room of the exchange August 12th, in honor of Miss Siner, chief clerk to the district chief at Indianapolis, who was formerly in Terre Haute. Invitations included all of the operators at the Main, West and North exchanges. The evening was spent in games and contests, followed by refreshments.

Eleanor Schmitt won the prize in the obstacle walking test, Laura King won the prize in the whistling contest, Mary Short received the prize in hanging clothes on the line contest, Laura LaForge received the prize in the peanut race, Nell Bradley re-



"GRETCHEN."

The Private Yacht of W. B. Hutchinson, of Michigan City.

left for his vacation on August 9th. Mr. Kingsbury handled his work. George started off, and when last seen at the station said he did not know whether he was going to Chicago, Cleveland or St. Louis.

On August 8th and 9th, D. H. Whitham, of the commercial superintendent's office at Indianapolis, and S. V. King, of the Western Union Telegraph Company, visited Culver, Auburn and Ft. Wayne, in connection with joint Western Union relations.

On Tuesday, August 5th, W. B. Hutchinson, president of the Merchants' Mutual Tel-

Sterling Barrows

Not a man at one end, a wheel at the other, and a load in the middle—

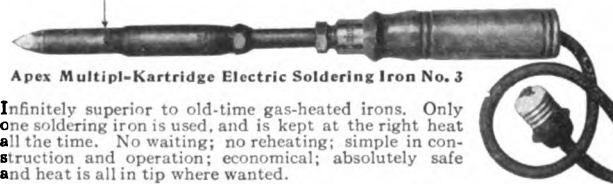
But scientifically constructed equipment designed to wheel easily and to last a long useful life.

The Sterling Contractor's Barrow shown here will hold over twice the load of ordinary pan shaped barrows. It will outlast two similar style barrows of other makes.

Among its features are: Channel steel legs—16-gauge steel tray—angle iron cross brace and V-brace riveted to channel legs. Clear bone-dry maple handles. Patented self-lubricating wheel, etc.

Don't fail to write for the Sterling Barrow Catalog.

Sterling Wheelbarrow Co., West Allis, Milwaukee, Wis.



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

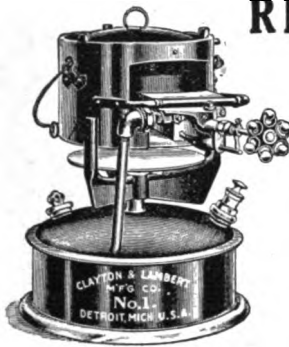
Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



No. 1 Fire Pot.
Price, each, \$6.00 Net.

RESULTS COUNT

You can do your work in half the time and with a big saving in fuel by using C. & L. Fire Pots and Torches, and soon save their cost and many dollars besides. Up-to-date mechanics recognize the C. & L. Line to be superior to all others, for the burners are made of special generator metal, producing greater heat, using less fuel. All torch tanks are made of heavy gauge seamless drawn brass, thoroughly braced.

All leading jobbers will supply at factory price. Send for Catalog—it's free.

CLAYTON & LAMBERT
MFG. CO., DETROIT, MICH., U. S. A.

"Beldenite" Rubber Insulated Telephone Wires

We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue, CHICAGO



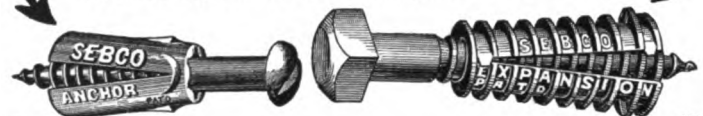
Expansion Bolts and Screw Anchors

are indispensable with
ELECTRICIANS and LINEMEN

They are absolutely the quickest, safest and most economical method

of fastening any kind of support, bracket or fixture to walls, floors or ceilings of any hard substance such as brick, stone or concrete either above or below water, under or above ground, in or out of doors; in fact any place where it is necessary to make a fastening.

THE USE OF SEBCO Screw Anchors and Expansion Bolts means a saving of time, labor and money. Drill a hole, insert the shield or anchor, attach the fixture and tighten the bolt; *your fixture is up to stay.*



THE ANCHORS made of a non-rusting composition metal are used for fastening bridle rings, cable clamps, insulators, switches, small switchboards, telephone sets and all light fixtures.

THE BOLTS made of malleable iron are used for heavy work such as fastening cable hangers, insulator brackets, motors, large switchboards, etc.

FREE samples and catalog will be sent on request

STAR EXPANSION BOLT CO. 147-149 Cedar Street New York

ceived the prize in the inflated paper bag throwing contest, and Cozette Siner received the prize in the arranging pins contest.

For the first time in the history of the New Home Telephone Company at Linton, the operators and other employees and their families, weary and care-worn from the hottest summer on record, were given a pleasant outing during the week ending August 2nd. This section of the country is not blessed with pretty lakes and picnic grounds as are some others, but it would be pretty hard to find a place on the banks of White River that would compare with the place secured by Manager Earl Talbott for this occasion. The Emery Grove on the west fork of White River, east of Linton, is a park abounding with natural resources. Belonging to a wealthy estate, it is kept up by the owners for their own pleasure. The favor bestowed upon the management of the telephone company by Major Emery in granting the privilege of this camp on his property was highly appreciated by all who visited it. The park has a large herd of deer and the beech trees are inhabited by gray and fox squirrels. The shade and springs are the best that can be found anywhere. The bathing beach on the west side of the park is ideal. There is good fishing in this section too. Fish fries were the order of the day. A large tent partitioned off into sleeping apartments afforded ample sleeping quarters for all. The kitchen and dining department was complete in every detail. The working forces from Linton, Bloomfield, Jasonville and Dugger divided and all had the opportunity of spending some time in camp. Among the visitors were Director Stone, of Bloomfield, and Secretary R. E. Guild, of Indianapolis. A large picture of this camp is shown on page 11.

Ohio Division

B. T. Calaway, Correspondent,
Columbus

Division Offices

W. R. Nutt, division cashier, was in Indianapolis on July 25th and 26th conferring with A. R. Henry, division cashier of Indiana, on discussion of methods pertaining to their line of work.
C. C. Fahl, chief clerk to the general manager, spent a couple of weeks at Lakeside.

C. B. Snyder, plant accountant, and his office force have moved to the old Telephone Building at 264 North High Street, Columbus, where they now have very large and pleasant quarters.

H. F. Barch, division cashier of the Cleveland Telephone Company, was in Columbus on July 23rd, conferring with W. R. Nutt, division cashier of Ohio, on methods.

R. R. Stevens, commercial superintendent, spent a few days in New York on business.

W. S. Crater, agent for connecting companies, spent a couple of weeks in Michigan.

Allard Smith, J. T. Daniels, J. W. Cherry, A. J. Walker and John Cline made an inspection trip by automobile throughout Ohio.

Ina Strawn, who has been stenographer in the plant superintendent's office, left the service of the company August 15th to enter Moody Bible Institute at Chicago, preparatory to entering upon missionary work.

Leta Grundtisch, stenographer in the commercial superintendent's office, has returned from a two weeks' visit at Goldfield, Colo.

Lora Barnes, clerk at Hilltop, resigned to be married to O. T. Fletcher, August 30th. Margaret Bentz, formerly supervisor, will succeed Miss Barnes.

The operators of the Hilltop exchange gave a farewell reception in their rest room Friday evening, August 22nd, honoring Lora Barnes and Ruth Albourne. Both are to be married and received the best wishes of all other employees. After a very pleasant evening, both girls were presented with beautiful silverware.

Nora Murnane, operator at Hilltop, has

Akron District

On July 16th, the traffic department at Akron gave a picnic at Silver Lake Park. Covers were laid for about forty operators and a dainty luncheon was served. Favors of little silver bells tied with blue ribbon marked the places of each member. After many toasts, Miss Gertrude Echard recited an original poem, "The Thoughts of an Operator of the Blue Bell Down on Main," the last verse of which was as follows:

"Wedded folks are not always happy,
Matrimony don't spell bliss;
A hubby does not always greet
His angel with a kiss.
When he keeps uncertain hours,
You wish and wish in vain
To be back at old headquarters,
The Blue Bell Down on Main."

Brooks Collins is the new switchboardman at the Akron office. Mr. Collins was transferred from Massillon.

When M. B. Stowell, district toll wire chief at Akron, left for his vacation last month he was a single man. When he came back he passed the cigars around.

The Akron commercial department quarters have been rearranged. The arrangement now makes it much more convenient, both for the employees and the public.

The Firestone Tire and Rubber Company, one of Akron's fastest growing tire manufacturing companies, has placed an order for another eighty-line board, in order to take care of the increasing telephone traffic at their office.

A district plant meeting was held in Akron August 12th. Plant Superintendent J. W. Cherry was present.

The No. 101 private exchange board at the Philadelphia Rubber Company, Akron, has been replaced by a larger capacity No. 4 lamp signal board.

Local service observing was started at Youngstown July 7th. Division Service Inspector B. V. Loudon, of Columbus, and C. R. Andrew, service inspector at Akron, assisted in getting the observations started. Jessie Black has accepted the position of service observer.

Gladys Barnes, clerk to the traffic chief at Akron, and Maurice Starns, wire chief at the same office, were married June 18th. Mr. and Mrs. Starns are now living on Fairview Terrace, Akron.

The C. H. Yeager Company, a large department store at Akron, has recently enlarged its building in order to take care of increasing business and has replaced a No. 2 private exchange system with a No. 4 lamp-signal board. This system will have twenty-one stations and three trunks at the start.

Additional cable is being placed in the Main Street underground system at Akron.

The following letter, written to the commercial manager at Youngstown, shows how the public at large view the charging of telegrams to their residence telephones. Mr. Farrell questioned a forty-cent toll charge, and as the bill had been filed with him, he was asked to return it, but was unable to find it—

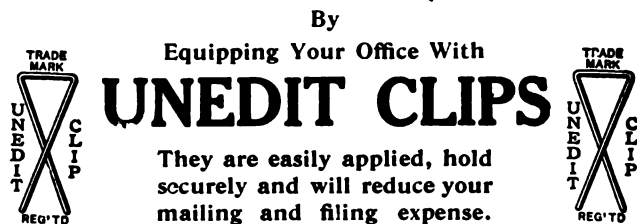
"Youngstown, Ohio, July 10, 1913.

"Mr. E. A. Sanders,

"Commercial Manager.

"Dear Sir: This was a telegram sent to a party by the name of Ed. Gravel, to a

You Can Save Time and Money



By Equipping Your Office With

UNEDIT CLIPS

They are easily applied, hold securely and will reduce your mailing and filing expense.

Manufactured by

Buffalo Machine Mfg. Co.

1354-1362 West Ave.

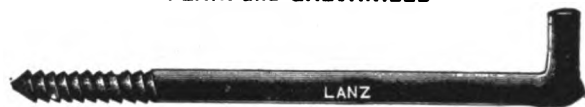
Buffalo, N. Y.

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of

ELECTRICAL HARDWARE

PLAIN and GALVANIZED



Pole Steps

Braces, Back and Cross Arm
Break Irons
Bolts, Arm and Eye and Thru
Cable Racks and Hooks
Guy Rods and Clamps
Hub Guards

Pole Steps and Brackets
Pole Balconies
Pothead Supports
Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc.

town near Cincinnati. I have forgotten the name.

"Am enclosing my check for full amount of account, because I consider it a convenience to be able to send message over your 'phone, in accordance with the new arrangement. If you have any difficulty charging message back, pay it and forget it. If not, you can remit me the forty cents.

"Thanking you for your interest in this matter, I am

"Very truly yours,
"C. Y. FARRELL."

Chillicothe District

Edgar T. Reynolds has accepted the position of cashier and telegraph operator at Nelsonville, which is a joint Class 10-A office.

Agnes F. McNally, clerk at Zanesville, resigned to be married and is succeeded by Cecilia Conlan.

Gladys Lane succeeds Bessie Swope as chief operator at Dresden.

Lulu Anna Weaver has been appointed chief operator at Roseville, succeeding Kate Swain, transferred to Zanesville.

Dayton District

Bernice Siler, bookkeeper at the Dayton exchange for the past ten years, died August 9th, from typhoid fever.

Toledo District

Beulah Gassman, operator at Findlay, resigned July 31st, to enter the Findlay Home and Hospital Training School for Nurses.

Maude M. Evans, traffic chief at Lima for the past two years, has been transferred to Dayton, Ohio. She is succeeded by Gertrude Long.

Neille Farrell, toll supervisor at Lima, was transferred to Toledo Exchange July 24th.

In honor of Miss Evans and Miss Farrell, Lima employees who were transferred during the past month, Gertrude Long entertained the traffic employees at her home on Wednesday evening, July 23d.

Anna and Amber McGreevy entertained at a six o'clock dinner on July 24th in honor of Miss Farrell and Mrs. Adeline Munk, formerly a toll operator at Lima.

Otto Young of Fostoria has accepted a position as lineman at Upper Sandusky, succeeding Harry Latson, recently transferred to Marion, Ohio.

The following private branch exchange contracts were taken at Toledo exchange during the month of July:

The Whitney & Currier Company, one trunk, one cordless board and four stations.

The J. W. Green Company, two trunks, one receiving station and four sub-stations.

The France Stone Company, two trunks, one switchboard and nine stations.

Lou Shaumleffel, clerk in the manager's office at Toledo, has resigned and is succeeded by Doris Black.

N. B. Penny, manager of the Crescent Telephone Company at Weston, Ohio, has been on the sick list for several weeks.

J. R. Bailey, plant chief at Findlay, has resigned and is succeeded by F. A. Phillips, of Lima.

George Brennan, repairman at North Baltimore, has resigned and is succeeded by Frank Thomas.

H. J. Walter, chief clerk to the district plant chief at Toledo, on returning from his vacation August 1st, announced that his was not only a vacation trip, but also a honeymoon trip. The bride is Clara Bernius. They will make their home at 622 Locust street, Toledo.

Charles J. Rappaport, formerly manager at Defiance, has been transferred to Toledo and appointed special agent. The change results from the consolidation of the Central Union Exchange and that of the Northwestern Telephone Company at Defiance.

The following letter was received by the company from the freight agent of the Toledo, Fostoria and Findlay Railway Company at Fostoria:

Fostoria, Ohio, August 2, 1913.

Central Union Telephone Company:

I feel it my duty to sit down and spend a few moments in writing you this letter for the purpose of thanking your company for the kind service which I have been receiving from the operators, both Local and Long Distance, as I certainly appreciate it. I will say that the operators are giving me unexpected service both by prompt service and also kind words. Also I wish to thank the chief operator and manager for their kindness shown me in the past years in which I have been using your telephone. Thanking you again, I remain,

Yours respectfully,

WM. C. LEUTZ,
Freight Agent.

Cleveland Division.

W. K. Lawrence, Correspondent.

Day Chief Operators' Picnic.

On Wednesday, June 30th, Minnie Spencer social secretary, Edith Campton, chief instructor, and the day chief operators held a picnic at Euclid Beach Park.

During most of the day, work and duty were forgotten. A good time was what they went for and with dancing, bowling, boating,



DAY CHIEF OPERATORS AT EUCLID BEACH.

Left to right: Miss Price, East; Miss Riley, Doan; Miss Casey, West; Miss Compton, chief instructor; Miss Meyers, Ridge; Miss Kramer, long-distance chief; Miss Ackroyd, Marlo; Miss Brady, Broad; Miss Yokel, South; Miss Spall, Main; Miss Susie Spencer, Eddy; Miss Galin, North.

merry-go-round, bathing, scenic railway, etc., they certainly did have one grand time.

There have been numerous arguments about who ate the most icecream cones, and who was the best swimmer, but they all take their hats off to Miss Kramer, long distance chief operator, when it comes to box-ball bowling.

Along about 4 o'clock in the afternoon a get-together meeting was held under the

Partridge & Anderson
Designers
Electrotypers
Engravers
Stereotypers
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
100-16 N. Fifth Ave. Chicago
AUTOMATIC 31-757 31-758

ELECTROSE
TRADE MARK
INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS

LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
64-72 Washington St. BROOKLYN, N. Y.
64-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue
CLEVELAND, OHIO



DAY CHIEF OPERATORS AND SOCIAL SECRETARY IN PICNIC AT EUCLID BEACH PARK, CLEVELAND.

Miss Spencer is the second figure from the left in the upper row.

trees, where everyone became better acquainted. After the get-together meeting one of those never-to-be-forgotten lunches was eaten.

When the night chief operators heard what a good time the day chief operators had, they were a trifle jealous, but when Miss Spencer informed them that this was only the first of a series of picnics planned for the summer, they brightened up.

Personals.

P. F. Cox, pay station agent, resigned August 1st. Mr. Cox was with the Cleveland Telephone Company for ten years. His health has been very poor for the past few years, and he resigned in the hope that an indefinite vacation might restore it. His many friends' best wishes go with him.

Minnie Spencer, former private branch exchange instructor, has been appointed social secretary, with headquarters in the traffic department. Miss Thomas, former school instructor, will take Miss Spencer's place.

Officials of the Western Union Telegraph Company at Cleveland are looking for

John Burkert, solicitor for the Cleveland Telephone Company, in order to have their head bookkeeper, Jennie Jones, come back to work. On Saturday afternoon, August 2nd, Miss Jones and Mr. Burkert eloped to Sandusky, where they were quietly married.

With Commercial Agents.

Through the efforts of G. V. Shaw the following contracts for private branch exchanges were secured:

The Richardson Motor Car Company, 2045 Euclid Avenue, cordless switchboard, two trunk lines and six stations; the Cleveland National Fire Insurance Company, 307 Park Building, cordless switchboard, two trunk lines and five stations; the Marks Company, 1021-31 Euclid Avenue, No. 4 switchboard, four trunk lines and twenty stations; the Miles Theater Company, Pythian Temple Building, No. 2 switchboard, one trunk line and six stations; J. H. Sampliner, 1119



CLEVELAND "MAIN" GIRLS AT Y. W. C. A. CAMP, MADISON, OHIO.

Williamson Building, No. 2 switchboards, one trunk line and six stations.

Charles Eliert secured a contract for a private branch exchange from the John Anisfield Company, 1326-28 West Ninth Street. The equipment will consist of a No. 4 switchboard, one trunk line and five stations. Also one from Mallin and Company, 2514 Vestry Avenue, for a cordless switchboard, one trunk line and eight stations. And one from the American Steel and Wire Company, Jones Avenue and W. & L. E. Railway, for a No. 101 Western Electric switchboard, one trunk line and nine stations.

A contract for a private branch exchange which will consist of a No. 4 switchboard, two trunk lines and eleven stations was secured from the G. Schaefer Wagon Company, 4170-4200 Lorain Avenue, by W. Englehardt.

The following contracts for private branch exchanges were secured by L. F. Barkhauer: The Browning King Company, 419 Euclid Avenue, cordless switchboard, two trunk lines and seven stations; Bloomberg and Wolf, 819 Williamson Building, cordless switchboard, two trunk lines and six stations.

Some August P. B. X. Contracts.

Contracts for private branch exchanges were secured from the following concerns by



"LAKE BREEZE," EUCLID BEACH PARK, CLEVELAND.

Anna Gahn, North chief operator; Anna La Duc and Helen Urabak, Main.

F. L. Barkhauer: The W. H. Quinby Company, 500 Euclid Avenue, No. 4 switchboard, three trunk lines and twelve stations. The Cleveland branch of the National Metal Trades Association, 310 New England Building, cordless switchboard, two trunk lines and six stations. The Automobile Owners' Protective Association, 227-35 Williamson Building, No. 4 switchboard, two trunk lines and six stations.

G. V. Shaw secured a contract for a private branch exchange from the Standard Drug Company, East Ninth Street and Bollivar Road, for a No. 4 switchboard, two trunk lines and eight stations. Also one from the Standard Motor Truck Company, 2348 Euclid Avenue, for a No. 2 switchboard, one trunk line and six stations.

Through the efforts of A. E. Bodmer a contract was secured for a private branch exchange from the Overland Garford Sales Company, 6614-18 Euclid Avenue, for a No. 4 switchboard, two trunk lines and seven stations.

I. W. McKee secured a contract for a private branch exchange from J. F. Corlett & Company, 1322

Rockefeller Bldg. which will consist of a No. 2 switchboard, two trunk lines and six stations.

A contract for a private branch exchange was secured from the Park Drop Forge Company, East Seventy-ninth Street and Gordon

Park, by N. J. Forgue. The equipment will consist of a cordless switchboard, two trunk lines and six stations.



BRINGING IN THE SHEAVES.

YOU'RE WASTING TIME

If You Haven't Started Using

FRANKEL'S TEST CLIPS

No peeling the wires. Permanent, positive connection every time and no damaged wires to repair.

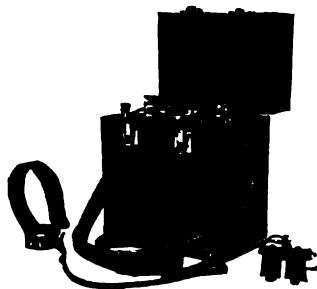


No. 2521	Each
Doz. lots.	20c
100 "	12 1/2
500 "	11
	10

Frankel Display Fixture Co.

Hudson and Vestry Sts.
NEW YORK CITY

Ask the Man That Owns a Telefault



A District Plant Chief of one of the largest Telephone Companies wrote us on June 24, 1913, as follows:

"Your letter of the 20th inst. to hand and in reply will say that we have been using your Telefault for the past two years and find that operating a cable plant without your Telefault would be like attempting to navigate a ship without a rudder.

"Before beginning to use the Telefault our district comprised but one-half the number of exchanges that we have today and it was necessary to use about three cable men in order to handle trouble. Now, in addition to the number of exchanges, the cable has been more than doubled as nearly all are on an all cable basis and we are able to handle trouble with two regular men and with more promptness.

"We are not only enabled to furnish our subscribers a better class of service, but the cost of living has also been reduced as the Splicer is enabled to locate the trouble with the Telefault, whereas without this instrument it was necessary that the Wire Chief go with the Splicer to locate trouble.

"In conclusion allow me to say that in my judgment Matthews Telefault is the greatest labor saving device in the way of cable maintenance that has been placed on the market for a number of years and will many times over reimburse the Telephone Company for its cost at any cable plant."



3728 Forest Park Boulevard

You can get them from the Western Electric Co.

Even the Bell Wires Were Placed With



KLEIN Linemen's Tools

SINCE 1857 IS A LONG TIME BUT SINCE THEN KLEIN TOOLS HAVE WIRED THE EARTH

YOUR interests require that you become familiar with our house, our product and our ways of satisfactorily satisfying any demand of the electrician, troubleman, lineman, construction man, superintendent or manager.

Our catalogue is of pertinent value to you. Write for it.

You can buy the product from many dealers and all electrical supply houses and if you do not find what you want write us direct.

MATHIAS KLEIN & SONS
562 W. Van Buren Street
Chicago, Ill., U. S. A.
Harrison 2047

The telephone line that lasts and keeps down transmission losses is strung on



"Thomas Quality" Porcelain Insulators

Wherever service conditions are unusually severe these brown glazed porcelain insulators will meet the requirements. Every insulator is rigidly inspected before it leaves the factory.

Manufactured by

The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

Offices in all principal cities



Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine to Washington

National Pole Company

Escanaba, Michigan

When you want a Lock you want the best.

EAGLE LOCK CO.

MANUFACTURERS OF

LOCKS

for all purposes.

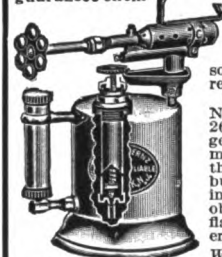
WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

"Always Reliable Torches"

Are the best on the market. They are thoroughly tested before leaving factory which enables us to guarantee them



Fitted with PATENTED "never leak" pump and PATENTED "one piece" soldering iron rest.

Burners on No. 25 and No. 26 torches generate gas much quicker than other burners, enabling the user to obtain a blue flame in a shorter time.

We also manufacture a complete line of furnaces especially adapted for the use of telephone and telegraph companies. Manufactured by OTTO BERNZ, Newark, N. J.

Incorporated 1911

ALBERT G. SEEBOTH COMPANY

MILWAUKEE, WIS.

Manufacturers of

Cotton Batts, Cotton and Woolen Waste

Phone South 532

Place your orders with us, we save you money.



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

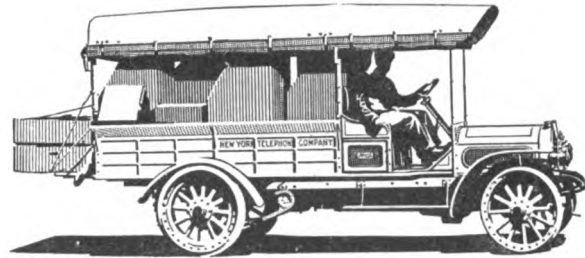
These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.



The Bell Telephone Company's Philadelphia plant uses one of our 1½-ton trucks to supply stations within 25 miles.

The saving over express delivery is 74.3%.
The saving over freight delivery is 59.7%.

International Motor Trucks

Proved by Years of Successful Service

Mack 12 years in use **Saurer** 18 years in use **Hewitt** 10 years in use

The continued efficiency of our trucks in all kinds of service is proved by records repeated year after year during 10, 12 and 18 years of service.

We supply a proved truck for every service.

Nine sizes—capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½ and 10 tons.

Bodies for every transportation service.

Have you any delivery problems? We place 18 years' accumulated experience at your service without obligations.

International Motor Company

General Offices: Broadway and 57th Street

Works: Allentown, Pa.; Plainfield, N. J.

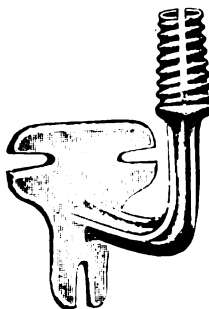
Branches and Service Stations in Chicago, Cleveland, Cincinnati, Kansas City—All Large Cities.

DURABILITY—ECONOMY—SAFETY

WHEN BUYING MATERIAL THESE FEATURES ARE ALWAYS CONSIDERED

WE HAVE COMBINED THEM IN THE MANUFACTURE OF

**ELECTRICAL
CONSTRUCTION
SUPPLIES**



**INSULATION BRACKETS
INSULATION BREAK-ARMS
INSULATION PINS
CROSS-ARM SUPPORTS
FEEDER ARMS
CONDUIT FRAMES AND
COVERS**

MALLEABLE AND CAST IRON PIPE FITTINGS

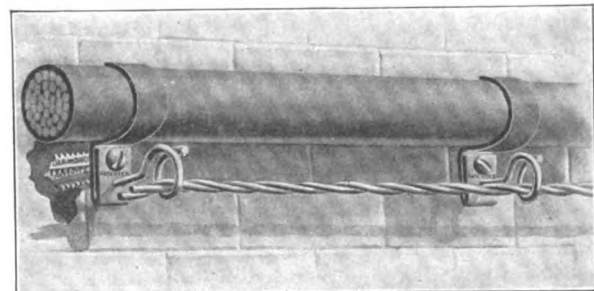
THE SIGN **M** OF QUALITY

**ILLINOIS MALLEABLE IRON CO.
CHICAGO, ILLINOIS**

"LONG SAUT" Combination Cable Clamps and Bridle Rings

The "LONG SAUT" Cable Clamp used in combination with machine thread Bridle Rings and Diamond Expansion Shields or Screw Anchors has solved the problem of the most economical and efficient method of fastening both lead covered cables and parallel runs of bridle wires in that form of telephone construction known as

"Interior Block Distribution"



Method of attaching lead cable and parallel run of bridle wire with "LONG Cable Clamp. Both are securely fastened with one SAUT" attachment.

Diamond Expansion Bolt Co.

MANUFACTURERS OF
DIAMOND SPECIALTIES

90 West Street

NEW YORK



The Merger of East and West

*"But there is neither East nor West, Border, nor Breed, nor Birth,
When two strong men stand face to face, tho' they come from the ends of the earth!"*
—KIPLING.

In the "Ballad of East and West," Kipling tells the story of an Indian border bandit pursued to his hiding place in the hills by an English colonel's son.

These men were of different races and represented widely different ideas of life. But, as they came face to face, each found in the other elements of character which made them friends.

In this country, before the days of the telephone, infrequent and indirect communication tended to keep the people of the various sections separated and apart.

The telephone, by making communication quick and direct, has been a great cementing force. It has broken down the barriers of distance. It has made us a homogeneous people.

The Bell System, with its 7,500,000 telephones connecting the east and the west, the north and the south, makes one great neighborhood of the whole country.

It brings us together 27,000,000 times a day, and thus develops our common interests, facilitates our commercial dealings and promotes the patriotism of the people.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

October, 1913

No. 3

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

SEPTEMBER 1, 1913

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	487,426	233,649	721,075
INDIANA	85,347	179,095	264,442
OHIO	167,723	177,159	344,882
MICHIGAN	198,849	58,926	257,775
WISCONSIN	<u>131,447</u>	<u>110,783</u>	<u>242,230</u>
	1,070,792	759,612	1,830,404

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., OCTOBER, 1913

Number 3

Remarkable Telephone Development at Madison, Wisconsin

Wisconsin Telephone Company Has One Telephone For Every Four Persons in Capital and University City

Madison, the capital of Wisconsin, and seat of the University of Wisconsin, claims the highest per capita telephone development of any city of her size in the United States. Not having at hand the statistics of the whole country to prove or disprove this assertion the BELL TELEPHONE NEWS makes no claim but certainly the figures look large and interesting.

Madison is a city of about 26,000 people. The area served by the exchange contains about 29,800 people.

The Wisconsin Telephone Company now operates 7,300 telephones in this area and the exchange is steadily growing.

The first telephone exchange in Madison was opened about 1884. At that time one grounded toll line extended from Milwaukee to Madison; the switchboard consisted of a one-position magneto equipment.

In 1887 this board was replaced with a standard magneto board consisting of two sections each, equipped with fifty drops. At that time the exchange subscribers numbered about ninety, all on grounded lines with the exception of a line to the State Capitol which was metallic. Up to this time the office quarters were located in the second floor of the building on the corner of King and Pinckney Streets.

In 1888 fire did considerable damage in the office and a new switchboard was required. This equipment consisted of four sections of fifty drops each, with the exception of the fourth section which was only equipped for twenty-five. The accompanying cut gives a good idea of what this board looked like.

There was very little activity in telephone circles at that time; the plant was all open wire, and the cost of distribution and equipment so high that the rates were beyond the means of the average person.

In 1896 the exchange had grown to about 150 subscribers, and in that year the company moved its offices to a building located at about where 15 East Main Street is to-day. In the same year

a local competing company was started in Madison.

From 1896 to 1900 there was considerable activity in the telephone field and the price of equipment was lowered. The cable and telephone material in general use was being manufactured and marketed at a cheaper rate. This enabled the rates for service to be lowered considerably so that in 1900 a total of approximately 400 people had subscribed to Bell service in Madison.

The company during that year purchased and occupied the two-story brick building at 16 South Carroll Street. This was

originally a church; it was entirely remodeled and a new office front built on to it, and the entire building furnished in the then latest type of equipment.

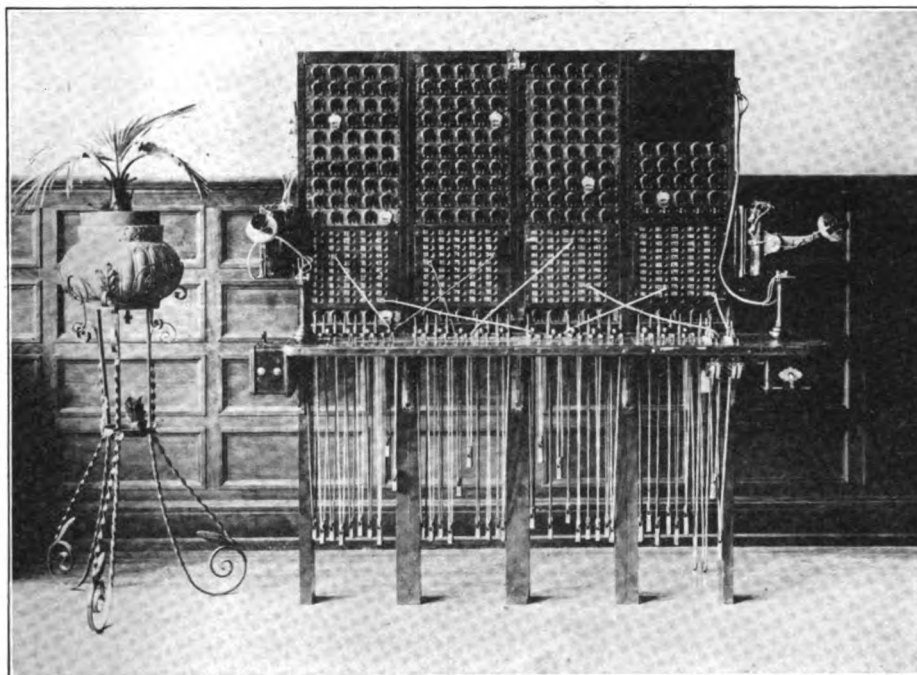
From that time on the growth was steady, but not very strong until in 1905 a central energy switchboard was installed and the entire system changed. The new board was cut into service with about 525 subscribers and from that time to the present the growth has been phenomenal. In November, 1908, the exchange numbered about 2,400 subscribers. During this month the independent company was absorbed by the Wisconsin Telephone Company and the exchange taken over. This brought the

total number of subscribers up to about 3,600. To-day Madison has approximately 7,300 subscribers stations, exclusive of service stations.

The present office is equipped with a local and toll switchboard; the local board consists of twenty-nine positions and the toll board twelve. The rooms are separate and each is in charge of a chief operator. Approximately 50,000 local connections are established per day, and 14,040 toll calls are handled per day.

There are thirty-one private branch exchanges in the city. Madison checks forty toll stations, and seventy-seven toll lines supply outlets to the outside world.

J. P. Brahany is commercial manager at Madison and E. E. Huggins is plant chief. Mrs. Emilie Wald is local chief op-



SWITCHBOARD AT MADISON, WIS., IN 1883.

erator and Marie Feller is toll chief operator. Madison is the headquarters of the Madison District, of which C. L. Miller is district manager.

Ancient and Modern Plant

By J. A. McManman, District Manager, Janesville, Wis.

The telephone plant of 1878-9 usually consisted of one or two rented back rooms in the center of the city or town, one used for batteries and supplies, the other for the switchboard. There was no occasion for main or intermediate frames as all new lines were connected with the next vacant spring-jack. Lines were single No. 16 iron wire strung across housetops. Of course, some poles were used for leads, but not many. Subscribers' stations consisted of Magneto bell, American bell single-pole hand telephone and Edison transmitter.

For protection on instruments there were two saw-toothed plates on top of bell box connected with binding posts, one of the latter being connected to line, the other to ground. The switchboard was equipped with flat springs resting on brass plates, which connected with annunciators, the spring being connected with subscriber's line. Operator's sets were instruments on the wall (regular subscribers' sets). The operator had single conductor cords with brass-faced plugs on one end to insert in flat jack and round brass plug on the other to connect with answering strip. The latter was a half inch brass strip with holes about four inches apart and connected with the wall instruments. These strips were on what is now known as the key-board and extended the full length of the switchboard so any operator could connect any subscriber with the answering instrument. To make connections between subscribers there were similar brass strips running the length of the board and placed between the spring jacks and the annunciators. To answer a call, the operator would insert the brass-faced plug in the jack, run over to the instrument on the wall, ask what was wanted, then return to the switchboard, take the round plug out of the answering strip and put it in the connecting strip, insert another plug in the spring jack of the

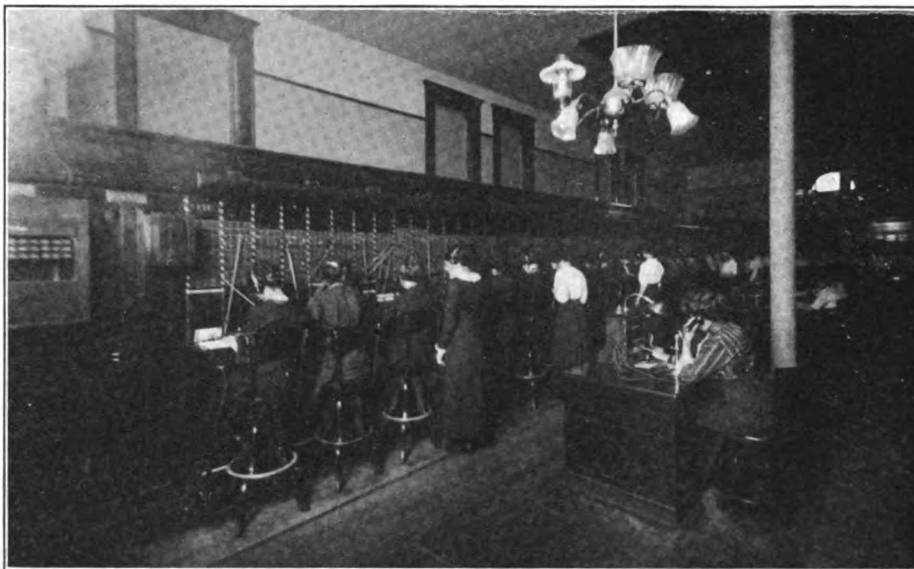
party wanted, the other, or round plug, in the answering strip, go back to the wall instrument, ring up the party wanted, then return to the board and take the round plug from the answering strip and place it in the same connecting strip that the calling party was connected with.

For supervision, there were tables equipped with brass plates and a telephone with a cord attached to a plug. The connecting strips were connected with these plates. When conversation was finished the supervisor would call out "disconnect No. 3 or No. 6," as the case

when it was found that one voltage could be used for all purposes since the high resistance transmitter was put in use.

The plant of to-day means large buildings with acres of floor space for switchboards, main and intermediate frames, relay racks, power plants, batteries, store rooms, shops for repairs, to say nothing of office buildings, stables and garages. Miles and miles of conduit; underground, aerial and submarine cables; also pole lines without end.

There are thousands of miles of toll and local circuits, mostly copper, with their necessary equipment.



OPERATING ROOM, MADISON, WIS.

might be. No doubt the reader thinks this was crude. At this date it would be so indeed.

There were cables also at that time but they were usually cotton covered wire drawn through an iron pipe. The pipe was then filled with oil—no aerial or underground cables in use then could stand the weather. Oil-filled cables were only used to cross rivers and when there was a leak, oil would appear on the surface of the water.

The first improvements were the Blake transmitter, which was considered almost perfection, and the multiple jack. Then came the trolley for street railways when the metallic circuit was found necessary. The period of time between the grounded and metallic circuit was bridged by what was known as the "McClure" system, consisting of a common return wire to which the subscribers' instruments were connected instead of being connected with local "ground." This was brought back to the central office and there grounded.

With the metallic circuits came the Hunnings transmitter. This was the forerunner of the solid-back transmitter. About this time the plant people found there were new problems to solve and new apparatus to be installed, especially as another and far more important change had come. The central-energy or common-battery system was being perfected. This necessitated not only change of switchboards but addition of power apparatus which meant motors, dynamos, power boards, etc. The first common-battery boards required two sets of batteries as the signalling and supervising voltage was different from that used for talking purposes. Other changes were necessary

We must include private branch exchanges, extension desk sets, coin collectors, telegraph and phantom circuit apparatus in addition to the regular main telephone.

There have been added to the plant forces engineers, construction and equipment men, draughtsmen and others too numerous to mention.



MRS. EMILIE WALD
Local Chief Operator, Madison



MARIE FELLER.
Toll Chief Operator, Madison

Holding Subscribers' Line for Long Distance

By S. H. Dickinson, Assistant Traffic Chief, American Telephone and Telegraph Company, Detroit

It is the practice of the American Telephone and Telegraph Company to pick up the subscriber's line at the completion of recording the call and hold it until the subscriber is given a report, but not to exceed ten minutes. At the expiration of ten minutes from the time the call was filed the operator is instructed to advise the subscriber as to the status of his call and release his line. The average interval from filing time to subscriber given a definite report on all A. T. & T. calls for the year 1911 was 5.7 minutes (based on an analysis of one day's business for each month). Since the subscriber's line is released on a great many tandem circuits calls before the subscriber is given a definite report, the average time that subscribers' lines are held awaiting the completion of calls is about four minutes.

The practice of the five companies of the Central Group differs from that of the A. T. & T. Company in that the subscribers' lines are held not to exceed five minutes on single-circuit calls, and not to exceed ten minutes on tandem-circuit calls. This difference in practice does not appreciably affect the average holding time, since a very large percentage of single-circuit calls are disposed of within the five-minute period. The average interval from filing to first definite report given subscribers on calls from Detroit to Toledo, for instance, for the year 1911, was four minutes.

Whenever there is a delay in completing calls over a group of circuits caused by congestion, circuit shortage or other causes, a notice of the approximate delay is posted at the recording boards; and a subscriber filing a call which is completed over these groups is advised of the anticipated delay, and his line is not held until the line operator is ready to work on his call. In no case is an operator allowed to work out on a toll circuit without first obtaining the line of the party calling.

Reasons for the Above Practice.

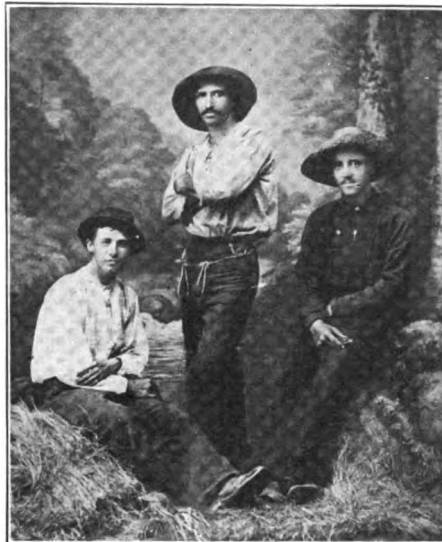
First: Elimination of annoyance to party called.

Under the old practice of reaching the party called before obtaining the line of the party calling, the annoyance was ever prevalent of calling a party from a meeting, interrupting a conference, or interfering in other ways with the business of the party called, only to tell him that "Detroit is calling, but their line is busy now." This was one of our main causes of complaints.

Second: Increase in the speed of service.

A large percentage of toll calls are received from business telephones which are in use more or less continuously. If the line is not held, a busy operator on a busy group of circuits attempts to get the line when she is ready to work on a call and finds it busy. She cannot hold the toll circuit idle or discontinue work on other subscribers' calls while waiting for this particular subscriber's line to become idle. The next call is therefore established over the idle circuit

and the first subscriber has lost his turn and must wait for the next idle circuit. When another circuit becomes available and the operator attempts to reach the subscriber's line, it is again busy, and another call goes up ahead of this particular subscriber. After this happens a few times the subscriber has gotten the idea firmly fixed in his mind that the service is bad or that he is being discriminated against, and the result is a complaint. In a large per-



A TRIO OF MADISON LINEMEN

And not moving picture Mexicans, as might be supposed. The picture was taken twenty-nine years ago.

centage of cases a subscriber places more importance on his toll calls than on his local ones, and under the old practice many very important calls from persons high in authority were delayed by unimportant local calls to or from subordinates. Under the present practice each subscriber's call is disposed of in the least possible time and without confusion to the operator.

Third: Reduction of holding time of subscribers' lines.

It is naturally thought by persons who have not made a study of the matter that holding the subscriber's line ten minutes discriminates against the subscriber by shutting him out from local service while waiting for the completion of his toll call. Figures obtained under both practices show that the average holding time per call of subscribers' lines has been reduced under the new practice. This reduction is due to the larger percentage of calls now disposed of on the first attempt.

It must be borne in mind that no system that can ever be devised will satisfy all the people, and that handling, as we do, immense volumes of traffic scattered to every point of any importance within the talking radius, and from thousands of subscribers, it is utterly impossible to make exceptions for every one who wants some special service and expect to maintain the grade of service that the public expects of us.

The logical procedure, therefore, is to determine the practice that will produce the service desired by the majority, and when so determined adhere strictly thereto.

The study of holding lines has been very exhaustive prior to the adoption of the present practice, and the fact that it has been adopted by Bell Companies in all the larger cities of the United States, and also that about ninety per cent. of our patrons are in favor of it after our object has been properly explained, proves that it is the best practice to follow.

The majority of complaints received against this practice are caused by faulty operating or equipment trouble. Faulty operating usually consists of failure to release line promptly by student operators. Equipment trouble usually consists of a sluggish relay, which causes failure of signal to light at the B position when the line has been released at the toll position. Instances of this kind cause the subscriber's line to be held a long time and, when discovered, he believes it to be the fault of our system and naturally complains, and it requires a great amount of tact on the part of the adjuster to make him see the facts in their true light. These occasional irregularities in our service are unavoidable and happen just the same whether we hold the subscriber's line or whether we do not.

"Reverse Charges"

The telephone rang at the home of one of the officials of the Chicago Telephone Company. It was a suburban call with reverse charges and the operator asked to have the charge O. K'd. Only the maid was home and the matter of reverse charges was new to her. It was explained to her that fifteen cents was to be paid at that end if the call was given. She took the message and then looked over the instrument to see where she could deposit three nickels. This extension was a wall telephone and after looking in vain for a nickel slot she tucked the three nickels into an opening near the receiver hook. When the mistress returned she gave her the message and told her that she had paid the fifteen cents.

The woman told her husband and with considerable amusement they awaited the result. It was about six weeks before there was trouble with the service, and a repairman came to investigate. Somewhat puzzled, at first, he finally discovered the three nickels, and with a surprised and rather reproachful expression showed them to Mrs. —, who then told him the joke.

Saved His Bacon

A farmer living south of Hartford City, Ind., relates with much pleasure how his telephone did him a valuable turn.

Late at night his neighbor, hearing a great commotion among this farmer's pigs called him over the telephone and stated that evidently something was wrong and that he would do well to look after them.

He proceeded to do so and found one of the pigs fast under the fence, the older ones attempting to devour him. The farmer released the pig, and congratulated himself upon his progressiveness in having telephone service. He claims he has made the price of his annual rental in saving this pig. Considering the cost of meat he is no doubt correct. Anyhow, the service is pretty cheap in that vicinity.

Welcome to Pioneers

Preparations are practically completed for the third annual meeting of the Telephone Pioneers of America, which will be held in Chicago, October 16th and 17th. Reservations already received indicate that there will be a large attendance of pioneers from all over the country.

The sessions will be held in the Congress Hotel. The business session will be called to order at 10 a. m., October 16th. The program of the afternoon will consist of addresses by Thomas A. Watson, 1875; N. C. Kingsbury, 1883; Thomas B. Doolittle, 1877, and Martin J. Carney, 1879.

Mr. Watson was associated with Professor Alexander Graham Bell at the time of the invention of the telephone. Mr. Kingsbury was formerly president of the Michigan State Telephone Company and is now a vice president of the American Telephone and Telegraph Company, with headquarters in New York. Mr. Doolittle now retired, was of the engineering department of the American Telephone and Telegraph Company, and is probably best known for his success in the production of hard-drawn copper wire. Mr. Carney is well known to Bell men of the Central group, being assistant to Vice-President Burt.

A theatrical performance by local telephone talent, will be given at one of the theatres on Thursday night. Friday morning will be devoted to an automobile ride through the Chicago parks and boulevards, the ride ending at the big Western Electric factory at Hawthorne, where luncheon will be served. After luncheon the pioneers will be shown over the works or as much of them as possible in one afternoon. The meeting will conclude with a banquet in the Gold Room of the Congress Hotel Friday night.

Headquarters for the pioneers at the Bell Telephone Building have been established in Room 1603, the offices of William J. Maiden, corresponding secretary for the central states. Chicago pioneers are urged to call at Mr. Maiden's office and register early.

The roster of pioneers contains the names of quite a good many women and a number will attend the Chicago meeting. A special effort will be made to make their visit pleasant.

Will Not Cheapen Service

F. Hammond, manager of the Almont Telephone Company, which connects with the Bell system in Michigan, makes a statement in the Almont *Herald* in regard to a commission appointed by the Almont Grange to "see what he was spending his money for and why he did not reduce the rental of telephones to \$12 a year."

"It is not all pleasure running a telephone business," says Mr. Hammond, and goes on to say, speaking of night service, "our night operator is glad to call a doctor at any time. I have two horses and lots of days they make forty-mile trips. I am here and am with you to better the service, but not to cheapen it."

Storm in Detroit

The pictures on this and the next page show some of the damage done by one of the many severe electrical storms from which Detroit suffered last summer. This particular disturbance started about 4:30 p. m., Sunday, August 3rd, and lasted about forty minutes.

Evolution of The Lineman

By George Salomonson, Line Supervisor, Detroit

To every man who has been identified with the telephone business for twelve or fifteen years, there comes at times a picture of the lineman as he was known that many years ago. As I remember him, he was a rough and ready man, absolutely fearless and endowed with that characteristic so essential in the early days, determined resourcefulness.

In the early days the lineman was, in fact, as much a commercial man or a traffic man as he was a plant man. His duties were such that he had to be familiar with all branches of the work.

ern telephone, which has become one of the servants of mankind.

If you were to ask the Telephone Pioneers of America how many had been linemen, you would find that a great majority had served their time on the top of a pole.

When we stop to consider the difficulties under which it was necessary to work, we are filled with admiration for the men who, without any engineering data to go by or any past experience to guide them, could do the work they did and, in the end, accomplish a task so



RAIN AND ELECTRICAL STORM IN DETROIT

Fort Street, looking east from Wilkie. A fifty-foot toll lead, carrying two 100-pair subscribers' cables, lies on the ground to the right. The street is flooded.

There was no one with experience to guide him. Everything he did was different from what had been done before. He was at the beginning of an industry with little or no past experience to go by. As there was no literature and very few people who had any exact information on telephony, most of the work was more or less of an experiment, calling for a great deal of resourcefulness on the part of the man doing the work.

Owing to the fact that there were no large telephone exchanges at that time, it was necessary for a man who was interested in the work to move from place to place, in order to find employment. This created a class of linemen known as "floaters" who, on account of the hazardous nature of the work, were, as a rule, a rather rough lot.

In every branch of engineering work, the pioneers were an army of sturdy determined men, but it is doubtful if any of them worked under greater disadvantages than did that army of linemen who fought, almost blindly, against odds which would have withstood the attacks of less determined, less resourceful, men. They left to this generation not only a vast amount of knowledge, gained by that hard teacher, experience, but they also left to the world the mod-

great as the development of the modern outside telephone plant.

When we see the pole leads which have withstood the attack of time and nature for a quarter of a century and when we remember the conditions under which they were built, we feel as if we are looking at a monument of a hero. And so we are—a monument as modest and unassuming as the men who fought and won for the benefit of this generation one of the most useful necessities.

How much better equipped the present lineman is to cope with the difficulties which constantly confront him! He has the vast amount of data, on all topics, left him by those who have gone before; a well educated and equipped engineering force to advise and guide him over the rough places; and a general engineering knowledge which is available to him to a greater extent today than ever before.

If you stop to consider that a large percentage of the cost of a subscriber's line or a toll line is in the line itself and in the work on that line, you can readily see how important it is to the public and to the company to have that line built as well and as permanently as possible. It is important to the public to have the work well done so there will be few interruptions to the service

on account of line trouble; and it is important to the Company to have a well-built line so that the service may be as good as possible with a minimum maintenance cost, or without the necessity of rebuilding the line long before they otherwise should.

I am well aware there is nothing new in the above statement. I only want to emphasize the fact that the successful lineman is the man who realizes the

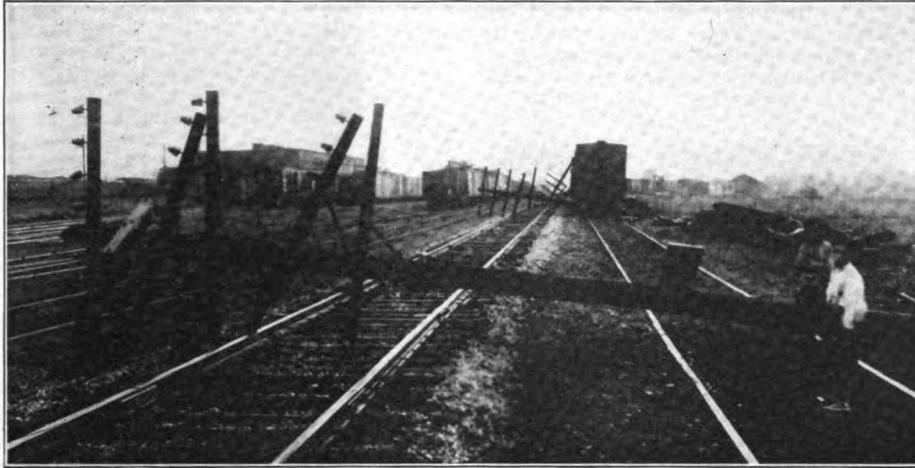
more than you could have made the book; yet they are familiar with it and made it as a guide to show you, as nearly as possible, how the Company wants the work done.

But it is impossible to set a fixed rule for every detail, and for every obstacle that you will encounter in a day's work. A lineman is expected to use his head and his judgment in cases where it is impossible or impracticable to use the

more easily or more quickly, is undoubtedly the most valuable man. By speed, I do not mean poor work. There are several ways to do any piece of work, and the man who succeeds is the one who can so analyze the work that he can do it with the least exertion, the fewest number of men, or quicker than the average.

In order to become a successful business man, a professor, an engineer, or to be engaged in any occupation, the first requisite is to have a love for it. If you are engaged in line work and feel you are adapted to the work, go at it as a good business man, a lawyer, or an engineer would. Study the work, study the chances for improvement, study every motion, every operation. See if it is not possible to eliminate some of the waste motions, or operations, or, in other words, waste time. You will be surprised how many little things you will find that can be improved and, at the same time, you will be gaining knowledge of the details of the work that it is impossible to obtain in any other way.

Because a certain thing has been done a certain way for years, is no sign that it is the correct way. This fact was brought to my attention a few weeks ago as I was watching a foreman and three men remove a sixty-five-foot circle top pole from an alley in the down town district. I was agreeably surprised to see how easily and quietly the work was done. Every man was busy every minute. There was no loud talking or unnecessary exertion. A motor truck was used for the heavy work, and the men, by using their knowledge of mechanics, did a job which, a few years ago, would have required twelve or fifteen men and a great deal of hard work.



RAIN AND ELECTRICAL STORM IN DETROIT

Western Union poles and wire down on the railroad tracks at West End Avenue, blocking traffic a whole day.

importance of his work and takes pains to see that every detail of it is done so well that there is absolutely no chance for an interruption of service or increased maintenance cost due to any negligence on his part. In doing this, the lineman can help the service, help the Company and, incidentally, help himself, as it is impossible for a man to work for the company without working for his own good. On the other hand, the man who is careless in his work not only hurts the Company, but does himself and those depending on him an even greater injury.

In any work, the man who does the best work and makes the fewest mistakes is bound to rise, and *I know of no business where a man's work will show to better advantage than in the telephone business.*

How easy it is for a man to get into a rut and unconsciously make the same mistakes day after day! A great many men are in a rut and wonder why they don't advance. They may be hard workers and quick in a good many things, but for some reason they drift along year after year in the same way. Maybe one or two of you are among these. If so, get a few technical magazines or books, or take your own specification book and see if there isn't something you are doing right along that could be done a quicker and better way. You will be surprised how many little kinks about the work you have overlooked or forgotten.

Compare your work and methods with those of other men and, if you are not benefited it will be strange. You will, at least, have the satisfaction of knowing your work is superior to his—if it is—and you will have given him a chance to improve by the comparison.

In speaking of the specification book, don't think that because you can read it back to front or upside down, that you are a lineman. You must remember that very few of the men who compiled that book could do a lineman's work any

method prescribed. That is his chance to show his superior what he is made of. If a man has some natural mechanical tendency it will be easy for him to apply standard construction to most unusual situations, but a lack of a me-



RAIN AND ELECTRICAL STORM IN DETROIT

Fort Street, looking east from Lawndale Avenue. Michigan State Telephone Company's toll lead and two 100-pair cables lie across the trolley wires, near a switch of the Detroit United Railway.

chanical tendency is no excuse for a man, because it is possible to find out what he wishes to know from the engineering department, which has information on all subjects pertaining to the work, so filed that it is available at a moment's notice. But, unquestionably, the man who is a natural mechanic, has the advantage, as far as the actual work is concerned.

In this day and age, people are "speed crazy." The man who can do a certain thing as well as the average man, but

As I watched the men, I wondered if they realized how fortunate they were to be placed under such a foreman. That foreman is a natural mechanic. He has the rare faculty of laying out the work so that every one of his men is busy every minute; to each man is given work he is best adapted for. This shows that the men have been studied by the foreman, as well as the work. There is no detail he is not familiar with; no kink but what he has an easy way to do it; no heavy straining that could be done more easily

and quickly by some other means; and, through it all, no confusion.

I would like to see every lineman serve an apprenticeship under such a foreman; if it were possible, we would soon see a mighty fine lot of linemen in the business and a great improvement in construction.

Probably the most of you are acquainted with the crew I refer to and will agree with me that they are an ideal crew. But, while they deserve every consideration, I must keep from being personal, and yet I wish to use them as an example of a crew who have succeeded in making hard work easier by the use of original and modern methods. A great many linemen are prominent members of the "Anvil Chorus." They have never succeeded themselves, apparently don't want to, and don't want any one else to. For this reason, it is sometimes necessary to give an example of any stated fact to counteract the "knocks."

Speaking of "knocking," did you ever stop to think how much of it a man can do by his actions? We often hear about the impression an installer can make by his appearance and his actions on a subscriber's premises—but how about the lineman on his wagon? The installer does not have a sign on him, so that the public knows who he is and for whom he works, so he is not hurting any one but himself by an ungentlemanly act in a public street. But the lineman is on a Company wagon, and his actions are a reflection for good or bad, not alone on the Company, but on the linemen as a class, and his bad conduct should be discouraged by all who have the best wishes of telephony at heart.

In this business, as in all others, there is no rule for success unless it is work, and Believe, and make the world believe, your jaw is set to win; Believe (belief's contagious) that your ship is coming in; Believe that every failure's brought about by lack of grit; Believe that work's a pleasure if you buckle into it; Believe, with him of old, that all things come to them that wait; Then hustle like the dickens while you're waiting.

Risks Life to Get Contract

The Columbus offices of the Central Union Telephone Company have in their personnel a great many big men, among whom possibly the biggest is one who for a long time has been the leader, both in personal size and volume of business obtained in the commercial department of the Columbus exchange. R. H. Lime, or "Cap," as he is familiarly known, weighs 320 pounds, and when recently he assisted in a canvass at Lima, the natives of that city were so impressed that the local newspapers remarked that the canvassers seemed to be selected for their "magnificent proportions."

The Columbus exchange has recently been making a canvass to regrade party-line subscribers. For four days Mr. Lime had been unsuccessfully canvassing a local business man who had been content with a two-party line and who also is a large man, weighing 250 pounds. As "Cap" blew into the office, puffing and blowing like a grampus, having climbed up several flights of stairs, the business man began to joke with him on his supposed lack of condition, and remarked

that he climbed those stairs every day, and it didn't bother him any. Now it chances that "Cap," despite his weight, is very strong, and has on numerous occasions been known to win the fat men's race over men who weighed a hundred pounds less than he, and being somewhat nettled, he replied, "Why, I take more exercise in a day than you do in a week. I walk miles and miles. I can dance, run foot races and turn a hand-spring." The gentleman replied, "I am from Missouri—that is another of your big bluffs, like your talk about better service. You will have to show me before I ever will sign up your contract. I don't believe you can turn a hand-spring."



R. H. LIME.

"Cap" looked down at the hardwood floor, covered with slippery oilcloth and the small space between desks and chairs and weakened, being actually afraid to try. Whereupon, as he was leaving the office, the subscriber said: "Any time you want to make good on one of those big bluffs of yours, come around and I will sign your contract." By this time "Cap" had become a little angry, so before the subscriber knew what he was doing he kicked the chairs aside, threw off his overcoat and turned as neat a hand-spring on the office floor as any school boy ever turned on the grass of the schoolhouse yard. Before he could recover himself the man threw up both hands and said: "That is enough. Make up your contract and I will sign it up right now," and "Cap" came home with the contract.

There are not many salesmen to whom their job is as serious a business as it is to "Cap" Lime. Perhaps that is one of the reasons why he gets so many contracts. The only regret is that there isn't a picture of "Cap" turning the hand-spring, but it would really take two cameras to take it.

Does Advertising Pay?

Recently during a thunder shower in Philadelphia, a man took refuge in the telephone company's building and while there picked up a few telephone advertising circulars. Three days later he called again and signed an application for service.

"Nothing New Under the Sun"

Through the courtesy of Mr. Sunny, we reproduce on the opposite page a letter dated February 1, 1886, which gives another bit of evidence to prove the old adage that "there is nothing new under the sun."

The last paragraph announces an arrangement to receive telegrams by telephone made by the Western Union Telegraph Company and the Chicago Telephone Company. This antedates by more than twenty years the like arrangement recently made by the Western Union with the Bell companies throughout the United States.

Another item of particular interest to telephone people in the Central group is the signature of Mr. Sunny and his name on the letter head as "superintendent." Mr. Sunny is now president, not only of the Chicago Telephone Company, but of the four other companies of the Central Group and is a director and vice president of the American Telephone and Telegraph Company.

Telephone Men Fire Fighters

"To live in the same block with the plant men of the Bell Telephone Company here ought to secure a reduction in fire insurance rates," says a recent issue of the *Courier*, published at Jacksonville, Ill. Continuing, the paper said:

"Although the men under Plant Chief Miller haven't yet risen to the hero medal class, they are coming into distinct note in their neighborhood. For before the average fire department could get onto the street they bring out a dinkey little chemical tank and put out ordinary blazes. Three times within two weeks they have probably saved the Ayers block, in which the Bell offices are located. The first fire started from a lightning stroke in the rear of Woodman's bakery Saturday afternoon a week ago. Up hops Miller with his little can, and it's all over. Then Monday morning at 7:30 a bucket of tar heating on a stove on the third floor of the building catches fire and a cloud of smoke rolls out of the rear window just as Mr. Ratliff of the Bell line force is coming to work. He runs up the stairway, kicks in a door and clambers to the third floor with this same little chemical and does a quick extinguishment before William Kitner, who was going to use the tar on the roof, had realized there was any danger. A few minutes later some of the tar which had spilled over onto a stove began blazing, when Ratliff brings up a bucket of sand from the floor below and uses it to the same effect. And while Mr. Kitner hasn't yet got his roof tarred he is probably some thousands to the good in the way of office building."

An Unusual Case of Trouble

A Chicago suburban toll repairman reports a peculiar case of trouble. In tracing a farmer line seven and one-half miles in the country to the last party on the circuit it was found that a tin-type photograph had been placed on the top of the telephone, resting on one side of the line and ground contact of the protector causing the trouble. The repairman was provoked at the unnecessary long, cold drive, but when he looked at the face on the tin-type he could see that it was sufficiently homely to stop service along the whole highway. If the face had been sufficiently attractive, he said, the picture would not have been in such an inappropriate place.

Form 5 A

ANSON STAGGER, Pres't.

R. C. WYMOND, Sec. and Treas.

NORMAN WILLIAMS, Vice President.

CHICAGO TELEPHONE CO.

C. N. FAX, General Manager. } Pullman Building.
B. E. SUNNY, Superintendent. } Adams St. and Mich. Ave.
F. M. BUCK, Contract Agent. }

CHICAGO, Feb. 1, 1886.

Subscribers, desiring to send messages to parties having no telephones, in any part of the city, can call for the American District Messenger Office located nearest the party to be reached, and transmit the message by telephone. (A list of offices will be found on the front cover of the Directory.) The A. D. T. Office will copy the message and deliver immediately by special messenger, charging ten cents for every twenty-five words, exclusive of address, for the message and the usual rates for messenger service (according to the distance). These amounts will be charged against the Telephone at which the message originated, and collected at the end of the month.

On account of the impossibility of determining fairly where errors in oral communications are made, the Telephone Company assumes no responsibility for errors in messages transmitted or received through the telephone. Due Diligence, however, will be exercised to make the transmission of messages accurate and reliable. This arrangement will be found of great convenience to Subscribers for reaching parties not connected with the Exchange, particularly in the remote parts of the city.

As indicated in the card sent out with the last Directory, an arrangement has been made with the Western Union Telegraph Company (Telephone No. 168), to receive messages by telephone from Subscribers, and transmit them by telegraph. Subscribers will find this a prompt and convenient method of reaching the telegraph service from their offices or residences, at any hour during the day, night or Sunday. No addition to the regular telegraph rates is made for this service. The tolls on messages will be charged against the telephone used, and collected at the end of the month.

B. E. SUNNY, Supt.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
 A. BURT, *Vice President*
 W. I. MIZNER, *Secretary*
 C. E. MOSLEY, *Treasurer*
 L. G. RICHARDSON, *General Counsel*
 B. S. GARVEY, *General Auditor*
 J. G. WRAY, *Chief Engineer*
 CLIFFORD ARBICK, *Manager Publicity Department*

H. F. HILL, *General Manager*,
 Chicago, Ill.
 E. A. REED, *General Manager*,
 Columbus, Ohio
 H. O. SEYMOUR, *General Manager*,
 Milwaukee, Wis.
 L. N. WHITNEY, *General Manager*,
 Indianapolis, Ind.
 A. VON SCHLITZ, *General Manager*,
 Detroit, Mich.
 H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, *Editor*

BELL TELEPHONE BUILDING . . . CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except
 employees of the above named Telephone Companies.

OCTOBER, 1913.

The "Safety-First" Campaign

Many of the great transportation companies—railroads, interurban electric lines and street railway lines, are conducting "safety-first" campaigns.

These are the companies to which the people entrust the safety of their bodies while they are being carried to and from their homes and business places. The companies recognize their responsibility and are concentrating efforts on the attempt to educate their employees to avoid carelessness. Hence the slogan, "Safety first."

The telephone company does not render a service which involves any danger to the public and it might be said that no object could be gained by a "safety-first" campaign. But among ourselves it would be of value.

Our employees in common with all other workers are the constant victims of their own carelessness. To illustrate—an installer was recently carrying a No. 37-A repeating coil which weighs twenty-four pounds. He was using both hands, but in order to open a door he transferred the load to one hand. The weight and shape of the coil caused it to slip from his hand and fall. It struck his foot and crushed one of his toes. This accident could have been avoided had the man applied the slogan "safety first" and placed the coil on the floor while he was opening the door.

Never take a chance where your personal safety is concerned. The graveyards are full of people who thought they could beat the street car to the crossing. Join the "safety-first" brigade. The only qualification necessary is common sense.

Psychology of the Telephone Call

When people talk over the telephone they get down to business promptly. This is not invariably true but is true as a rule. Usually people say what they want to say briefly and then "ring off."

The saving in time secured by such a general practice is obviously great. It is true that not everyone has a good "telephone style." Now and then, perhaps, one is called from an important task by somebody who indulges in vain repetitions and empty phrases, but he does not open his conversation with the remark, as do too many visitors to busy offices, that he "happened to be passing and thought he'd just drop in"—for a minute that frequently stretches to an hour.

The telephone is often used for less than a sufficient reason, but it is hardly ever used for no reason at all, and the general appreciation of that fact probably explains the psychological phenomenon that access to the attention of busy or exclusive people is so much more easily secured when sought by telephone instead of personally. Almost anybody will respond at almost any time when informed that "you're wanted at the telephone." The summons draws the hungry from their dinners, the bank president from his directors' meeting, the tradesman from the customer standing at the counter with money to spend.

The efforts being made to educate the users to cut still shorter the useless preliminaries to telephone conversations will still

further commend the telephone to the busy man and add to the dignity as well as convenience of transacting important business over the wires.

More About Advance Payments

The principle underlying the collection of telephone rentals in advance was again given a clear exposition a few weeks ago at Grand Rapids, Mich., by CHAIRMAN LAWTON T. HEMANS, of the State Railroad Commission. This principle (and it is a principle) is that payment in advance is not only fair to the company but is fair to the honest telephone user as well. In discussing a complaint brought against the Citizens' Telephone Company, of Grand Rapids, Mr. HEMANS is reported to have said:

Last year in Wisconsin the loss to the telephone companies from bad accounts amounted to 9.6 cents a telephone, and most of this loss was in long-distance tolls. In Michigan the Bell company alone, which did not insist strictly upon advance payments, lost \$90,000, or 50.7 cents a telephone on its bad accounts. In state regulation of telephone companies it is the duty of the commission to see that service is given for the lowest reasonable charge, at the same time giving a fair return to the company with due regard for depreciation, etc. In such a position the elimination of any loss factor which may increase the cost of service is one of the duties of a commission, and it is upon this basis alone that the advance payments have been indorsed by the regulatory commissions.

MR. HEMANS added that a company cannot discriminate, and this addition makes the case complete. A company cannot discriminate. It must furnish service to all who apply and enforce the same collection methods on all accounts. The company takes a risk in accepting some applications for service. Payment in advance by the subscriber reduces this risk to the minimum. But, as before explained, the company cannot require some to pay in advance and not require the same thing of others.

In consenting to pay in advance, the honest, permanent subscriber is helping to protect himself against possible increase in charges which might become necessary if the unthrifty or dishonest user were allowed to escape his bills.

It is interesting to note that advance payments of telephone rentals have been sustained by the supreme courts of seven states.

A Happy Harvest-Home

The telephone saved the 1913 fruit crop in the West.

To-day, with the certainty of a splendid yield before them, fruit growers of the mountain states are blessing Professor Bell's invention and the vigorous cooperation between weather bureau service and telephone service which insured to them its benefits.

Reports indicate that this year's crop will be heavier and more valuable in Colorado than for many previous seasons. The big yield is the result of precautions taken last spring. In every section of the West where the growers had telephones, notice of the approach of low temperatures was received in time to prevent loss by frost through the use of smudge pots. In sections which were without telephone connection, the news of coming low temperature traveled too slowly and growers were unable to protect their property. But these sections were relatively few and the bulk of the fruit was saved. The saving amounts to millions of dollars—considerably more, no doubt, than the total bill for telephone service for the whole section for many seasons.

The demand for this kind of telephone service is firmly established and the Bell Company of the mountain states announces that the service will be still further improved next year. The weather bureau officials are more than willing to furnish the necessary information and it appears that hereafter no fruit grower need run any risk of crop failure if he avails himself of the means of protection offered.

A Man of the Moment

As a result of the intelligence and promptness of a Bell employe, one person to-day is in the land of the living whose life might have been lost had not this man, equipped with exactly the information required and the ability to use it, been on hand at the moment of emergency.

This summarizes the story of the resuscitation of Mrs. PIERCE at the hands of Mr. J. F. WIGGERT, Bell wire chief at La Crosse, an account of which appears elsewhere in this issue.

MR. WIGGERT joined with others in taking Mrs. PIERCE from the water but, this done, it was his knowledge of the scientific methods of resuscitation which saved the woman's life. Without such knowledge and its intelligent application by someone, the rescue from the water would have been of no avail.

MR. WIGGERT's ability to do the necessary thing was doubtless due to instruction given in charts and booklets recently issued by the Bell System, and is a demonstration of the value of the general and varied information with which the System supplies those in its service.

District and Division Collection Rating

AUGUST 1, 1913.

	Total to be collected during July, '13.	July, '13, collections.	Unpaid Aug. 1st.	Pct. col- lected.	Pct. uncol- lect- able to current chg.	Sta- tions.
1. Wis. Co., Appleton Dist.	\$ 63,198	\$ 61,270	\$ 1,928	96.9	.1	26,972
2. C. U. Co., Columbus Dist.	79,992	74,814	5,178	93.5	.1	21,418
3. C. U. Co., (Indiana), Southern Dist.	53,259	48,897	4,362	91.8	.3	19,003
4. C. U. Co., Centralia Dist.	12,063	10,796	1,267	89.5	.4	5,067
5. Wis. Co., Janesville Dist.	10,227	9,126	1,101	89.2	.1	4,365
6. Wis. Co., Madison Dist.	39,435	35,194	4,241	89.2	.1	15,862
7. C. U. Co., Toledo Dist.	77,828	68,015	9,813	87.4	.3	25,973
8. Chicago Co., Chicago Heights Dist.	7,661	6,608	1,053	86.2	.05	2,543
9. C. U. Co., Alton Dist.	12,090	10,393	1,697	86.0	.03	3,170
10. C. U. Co., Paris Dist.	3,240	2,754	486	85.1	.1	1,639
11. C. U. Co., Northern Dist.	77,827	66,182	11,645	85.0	.4	26,293
12. C. U. Co., Chillicothe Dist.	55,566	46,697	8,869	84.0	.2	18,894
13. C. U. Co., Jacksonville Dist.	11,967	10,057	1,910	84.1	.1	4,289
14. Michigan Co., Detroit Dist.	351,412	294,229	57,183	83.7	.6	80,680
15. Chicago Co., Blue Island Dist.	10,872	9,085	1,787	83.6	.22	3,341
16. Chicago Co., Chicago Dist.	1,392,910	1,158,726	234,184	83.2	.05	334,622
17. Wis. Co., Milwaukee Dist.	375,772	312,182	63,590	83.1	.1	60,739
18. Wis. Co., Eau Claire Dist.	37,611	31,132	6,479	82.7	.5	13,278
19. C. U. Co., Akron Dist.	91,087	75,111	15,976	82.5	.1	23,391
20. Chicago Co., La Grange Dist.	16,402	13,302	3,100	82.0	.08	5,031
21. C. U. Co., Galesburg Dist.	7,447	6,080	1,367	81.6	.6	3,406
22. C. U. Co., Quincy Dist.	15,316	12,363	2,948	80.8	.0	5,927
23. C. U. Co., Rock Island Dist.	30,154	24,249	5,905	80.4	.3	10,174
24. C. U. Co., Dayton Dist.	79,714	63,895	15,819	80.2	.3	23,313
25. Chicago Co., Wheaton Dist.	12,400	9,971	2,429	79.8	.25	3,325
26. Chicago Co., Aurora Dist.	19,725	15,681	4,044	79.5	.0	6,537
27. C. U. Co., La Salle Dist.	7,483	5,919	1,564	79.1	.0	2,556
28. C. U. Co., Champaign Dist.	7,263	5,747	1,516	79.1	.5	2,294
29. Chicago Co., Elgin Dist.	16,323	12,866	3,457	78.8	.12	6,045
30. Chicago Co., Oak Park Dist.	35,711	28,043	7,668	78.5	.11	9,704
31. Chicago Co., Waukegan Dist.	28,972	22,499	6,473	77.6	.42	7,827
32. C. U. Co., Kankakee Dist.	16,771	12,959	3,812	77.3	.2	5,900
33. C. U. Co., (Indiana), Central Dist.	149,226	115,280	33,946	77.3	.3	30,444
34. Chicago Co., Hammond Dist.	20,768	15,671	5,097	75.5	.30	5,764
35. Chicago Co., Evanston Dist.	43,732	32,930	10,802	75.3	.03	9,727
36. Chicago Co., Gary Dist.	11,794	8,775	3,019	74.4	.0	2,213
37. C. U. Co., Peoria Dist.	52,633	38,752	13,881	73.6	.1	15,774
38. Chicago Co., Woodstock Dist.	11,260	8,275	2,985	73.4	.0	3,507
39. Chicago Co., Joliet Dist.	29,695	21,461	8,234	72.3	.30	9,766
40. Cleveland Co., Cleveland Dist.	506,081	356,041	150,040	70.4	.23	56,611
41. C. U. Co., Decatur Dist.	19,891	13,276	6,615	66.7	.3	5,492
42. C. U. Co., Springfield Dist.	39,719	25,937	13,782	65.3	.1	9,964
43. C. U. Co., Rockford Dist.	23,579	14,351	9,228	60.9	.1	7,651
44. Michigan Co., Saginaw Dist.	126,639	67,258	59,381	53.1	.1	21,201
45. Michigan Co., Marquette Dist.	97,058	50,853	46,205	52.3	.0	15,143
46. Michigan Co., Grand Rapids Dist.	229,493	119,051	110,442	51.8	.0	42,849
47. Michigan Co., Eastern Dist.	166,244	84,461	81,783	50.8	.0	31,060
Total	\$4,585,510	\$3,537,219	\$1,048,291	77.1	..	1,051,194

*Quarterly rental billing.

District Summary.

C. U. Co., Ohio	\$ 384,187	\$ 328,532	\$ 55,655	85.5	.2	112,989
Wisconsin Co.	526,243	448,904	77,339	85.3	.1	121,216
Chicago Co. (City)	1,392,910	1,158,726	234,184	83.2	.05	334,622
C. U. Co., Indiana	280,312	230,359	49,953	82.2	.4	75,740
Chicago Co. (Sub.)	265,315	205,167	60,148	77.3	.13	75,830
C. U. Co., Illinois	259,616	193,638	65,978	74.6	.2	83,303
Cleveland Co.	506,081	356,041	150,040	70.4	.23	56,611
Michigan Co.	970,846	615,852	354,994	63.4	.2	190,883
Total	\$4,585,510	\$3,537,219	\$1,048,291	77.1	..	1,051,194

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent. of the total charges for collection during July, 1913, are given below:

City and State.	Per cent collected.	Sta- tions.
Columbus, Wis.	100	834
French Lick, Ind.	100	438
Horicon, Wis.	100	348
Marshall, Ohio	100	172
Rainsboro, Ohio	100	138
Princeton, Wis.	100	126
Peshigo, Wis.	100	124
Red Granite, Wis.	100	105
Belfast, Ohio	100	96
Burnett Jct., Wis.	100	76
Linden, Ind.	100	69
Little Chute, Wis.	100	49
Okawville, Ill.	100	18
Goshen, Ind.	100	17
Sturgis, Mich.	100	14
Mt. Orab, Ohio	100	13
Elkhart, Ind.	100	11
Elburn, Ill.	100	6
Plainfield, Ind.	100	5
Brooklyn, Ind.	99.7	76
Fairland, Ind.	99.5	60
Vincennes, Ind.	99.3	2,543
Manitowoc, Wis.	99.1	1,469
Beaver Dam, Wis.	99.0	1,432
Marinette, Wis.	98.9	1,416
Sturgeon L., Wis.	98.8	755
Algoma, Wis.	98.8	255
Waupaca, Wis.	98.7	479
Canal Winchester, Ohio	98.7	158
Stoughton, Wis.	98.6	1,027
Watertown, Wis.	98.6	900

Danville, Ohio	98.6	237
Wrightstown, Wis.	98.6	103
Neenah-Menasha, Wis.	98.5	1,486
Ft. Atkinson, Wis.	98.5	780
Hartford, Wis.	98.4	645
Hortonville, Wis.	98.2	344
Winneconne, Wis.	98.2	140
Wabash, Ind.	98.2	31
Edwardsville, Ill.	98.1	1,187
Oconto Falls, Wis.	98.1	106
Galva, Ill.	98.1	7
Crawfordsville, Ind.	98.0	2,907
Auburn, Ind.	98.0	1,076
Whitewater, Wis.	98.0	828
Kewanee, Ill.	98.0	399
Fond du Lac, Wis.	97.9	3,508
Greenwood, Ind.	97.9	345
Bensenville, Ill.	97.8	170
Boggsstown, Ind.	97.8	87
Smith Valley, Ind.	97.8	59
Jefferson, Wis.	97.7	388
New London, Wis.	97.6	507
Stevens Point, Wis.	97.5	911
Hillsboro, Ohio	97.5	627
Spencer, Ind.	97.4	254
Kewaunee, Wis.	97.3	262
Oconto, Wis.	97.2	486
Alexandria, Ind.	97.1	384
Winchester, Ohio	97.0	346
Oshkosh, Wis.	96.9	4,286
Waukesha, Wis.	96.9	1,906
Cedarburg, Wis.	96.9	190
Gladwin, Mich.	96.9	120
Richmond, Ind.	96.9	63
Baraboo, Wis.	96.8	766
Washington, Ind.	96.6	1,539
De Pere, Wis.	96.5	1,054
Mayville, Wis.	96.5	460
Standish, Mich.	96.5	145

Burlington, Wis.	96.3	733
Berlin, Wis.	96.3	404
Beloit, Wis.	96.2	1,772
Waupun, Wis.	96.2	624
Harrisonville, Ohio	96.2	62
Omro, Wis.	96.1	542
Romney, Ind.	95.9	159
Stanley, Wis.	95.7	342
Juneau, Wis.	95.7	174
Ashville, Ohio	95.5	24
Appleton, Wis.	95.4	1,209
Milledgeville, Ohio	95.4	164
Bedford, Ind.	95.2	1,595
Kaukauna, Wis.	95.2	432
Buchtel, Ohio	95.1	138
Green Bay, Wis.	95.0	5,172
Bayfield, Wis.	95.0	261

The Kind of Man Not to Employ

A short time since, while riding in a public conveyance belonging to a public service corporation, which, by virtue of its services, is and should be a natural monopoly, I heard a young employe in charge of the conveyance, evidently one who had been recently placed in that position, repeatedly speak in anything but complimentary terms of the company which had given him the opportunity, if it is within him, not only to make a fair living, but to rise to a better and more responsible position. He freely indulged in what is commonly known as "knocking," by stating that his company was unfair to its employes; that it would not pay wages which he considered just compensation for the work done, and that besides this he was penalized each week for fares not collected to the amount of \$2 or \$3; that what his company needed was competition in order that the men would receive greater compensation.

It seems to me the above exactly described the class of employes *we do not wish*; one who is, to say the least, dishonorable, in that he does not show by word or action, that he is willing to support his employer who has given him an opportunity to support himself; one whose mind is so narrow as to try to promote a feeling which he thinks will further his individual interests to the detriment of the traveling public; one whose intellect is so dwarfed as to try to further the interests of a few to the inconvenience and expense of the masses; one who I believe if he were placed in a position where he had to ask for alms, and were given bread, would grumble because he was not given cake. This class of man is unworthy and the class whom we should avoid employing.

What we want in the telephone business is the employe who will realize that he is given an opportunity to make a living; that in front of him is the road to success if he but knows the by-paths that lead to it; one who will realize that his success depends upon himself; who will be eager to grasp every opportunity to further his company's interests; one who will under any and all circumstances be ready to defend his company against all adverse criticism, and one who, if not supplied with the necessary arguments, will at least say nothing until he can procure sufficient information to explain properly why his company does certain things in this or that way; one who is at all times enlisted in the "Bell Telephone Army," which is 135,000 strong and is willing to do his share of the fighting for success; one whose manner is pleasant and courteous, and whose words are pleasing to hear.—W. R. Hirst, Plant Superintendent, Indianapolis.

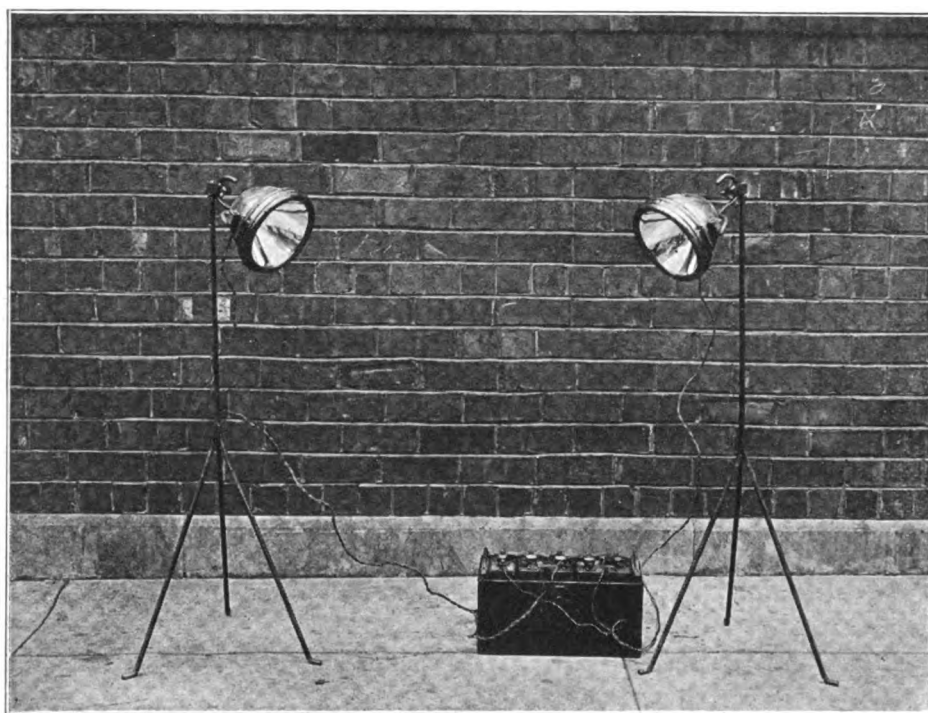
Telephones in Bahia

An American made telephone system has recently been installed in Bahia, Brazil.

Apparatus for Lighting Vaults

Extensive cuts and transfers of conductors to be made on working cables must necessarily be handled with the least possible interruption to service, so that a great deal of this work is done at night. To obtain a means of lighting in such cases which shall be at once safe, convenient, and economical, the apparatus shown in the two accompanying pictures was devised. It consists of two Acorn type automobile headlights containing six-candle power tungsten lamps, supported on iron tripod stands. The lamps are connected in parallel to a six-volt ignition battery. The total energy consumption is only about twenty watts, so that a single charge of the battery is more than sufficient for running the lamps for any desired length of time.

The second photograph shows the lamps in use. They are turned so that



NEW APPARATUS FOR LIGHTING VAULTS

the portion of cable on which the man is working is brilliantly illuminated. With these lamps the electric light bulbs can be moved backward and forward so that a beam of light of any desired angle can be produced. The cut shows the lamps so focused that the light is concentrated on the small space where the man is working.

This arrangement is proving popular with the splicers.

Race News by Telephone

During the aero-hydroplane race of this summer from Chicago to Detroit, one Chicago newspaper used Bell toll lines exclusively for locating and keeping track of the contestants.

Instructions were issued to Bell managers to have all light houses and life saving stations call this newspaper man at his headquarters on a reversed call, and inform him of the passage of each machine. This energetic reporter was thus enabled to keep in close touch with all the boats and furnish his paper with detailed accounts covering the entire course.

Chicago Telephone Company's City Exchanges

V.-Main

By R. L. Altman, Wire Chief

The Main Office district comprises the territory bounded on the north by Illinois Street, on the east by Clark Street, on the south by Quincy Street, and on the west by Jefferson Street. The Exchange is located in the old Telephone Building at the corner of Franklin and Washington Streets, and takes the greater portion of the sixth, seventh and eighth floors. On the eighth floor is located the Main A board, the Main and Franklin B boards and the Chicago Telephone Company's private branch exchanges of telephone wires and cables that

ings that is used to handle the Main Office subscribers' traffic as well as the traffic of the company's general offices.

In Main Office territory are located some of the largest wholesale houses in the city as well as some of the largest hotels, and it also takes in all of the commission houses on South Water Street, west of Clark Street.

Nearly all of these larger establishments have their own private branch exchanges and many of these are large enough to rival a "central exchange" in a smaller city. In the Hotel La Salle alone there are over 1,200 telephones in service, which is more than any other private installation in the city.

The "Main" territory has but few aerial wires and the few we have are located at the extreme north end of the district between the Chicago River and Illinois Street.

Main was the fifth office to be cut over to common battery and the cut was made on July 21, 1900. The original installation consisted of sixty A and twenty-six B positions. The A board at that time had 3 subscribers' multiple with a capacity of 4,900 lines and an outgoing trunk capacity of 500 trunks with fifteen outgoing call circuits.

The B board had a subscribers' multiple capacity of 5,500 lines and 650 incoming trunks. At the time of the cut-over there were about 3,300 working lines with 4,300 subscribers' stations, 420 outgoing and 385 incoming trunks, twelve outgoing call circuits and twenty B and fifty-eight A positions. Two of the A positions were at that time used as private branch exchange for the Chicago Telephone Company, and one position used to operate the City Hall telephones. At that time the wire chief's force of about twenty-eight men consisted of his assistant, five testmen, one frameman, one clerk, three day, two evening and three night switchboardmen, three linemen and about nine inspectors.

All instrument trouble as well as inspections were handled by a separate department known as the inspection department, but each wire chief had several linemen assigned to him and at Main Office the linemen, in addition to handling the line trouble in Main Office territory, handled all the trouble on private lines throughout the city. When trouble began to settle down to a normal basis after the cut-over, this force gradually dwindled down to twenty-two men. The traffic force at that time consisted of 159 employees, including manager, chief operator, clerks, supervisors, operators, etc.

At the present time there are two units in Main Office, namely, Main and Franklin. In the two units we have a total of 114 positions of A and fifty-six positions of B board. In addition to these we have a special board of sixteen positions used as a private exchange board for the Chicago Telephone Company, ten positions of special board used as a private exchange for the City Hall, sixteen positions of tandem trunking board and another board of twenty-four positions used as an information board, or a grand total of 236 operators' positions.

On April 1, 1913, we had a total of 6,432

change board. On the seventh floor we have the Franklin A board, the City Hall private branch exchange board, the tandem board and the information board, as well as the apparatus for the A and B boards. On the sixth floor is the wire chief's quarters, testing desk, main distributing frame, fuse panels, batteries and the ringing and message register machines. The pothead room is on the fifth floor and the charging panels and charging machines are located in the basement.

In the Toll Building, which is an eight-story building adjoining, are located the Chicago Telephone Company's Toll board, the A. T. & T. Co.'s Quincy Exchange, and the Chicago Telephone Company's school switchboard. The Toll switchboard is located on the sixth floor, the A. T. & T. Co.'s Quincy board on the fifth, and the recording board on the fourth floor, with the wire chief's testing boards on the second floor.

In this group of buildings we have over 500 positions of switchboard alone, not to mention the tons of other telephonic apparatus and the thousands of form a network throughout these build-

working subscribers' lines and 16,992 stations divided as follows:

	Lines.	Stations.
Pay Station.....	258	321
Flat Rate	1,969	3,871
M. S.	1,125	1,606
One-party Nickel	146	189
Two-party Nickel	1,009	1,090
M. S. Trunks.....	1,633	
M. C. Trunks.....	292	
P. B. X.....		9,915

B Boards

The Main B board at the present time has a subscribers' multiple capacity of 5,700 lines, thirty operators' positions and 1,200 incoming trunks, arranged forty trunks per position.

The Franklin B board has a subscribers' multiple capacity of 4,200 lines, twenty-six operators' positions, and 1,040 incoming trunks, arranged forty trunks per position, or a total subscribers' multiple capacity on both boards of 9,900 lines and incoming trunks.

A Boards

On the Main A board the subscribers' multiple was removed a few months ago to conform to standard practice and to make room for additional out-trunk multiple, and as the Franklin A board never was equipped with subscribers' multiple, this leaves our A board entirely without subscribers' multiple, so that all local calls are trunked to the B board.

The outgoing trunks and call circuits of our Main and Franklin boards are nearly all common and have a capacity of 1,500 trunks and 60 call circuits, and the boards are now being rewired to accommodate double the present call circuit capacity.

The Main A board has an answering jack capacity of 7,810 jacks, while the Franklin A board has a capacity of 2,090 jacks, making a total answering jack capacity of 9,900. Of these, 4,000 are equipped with message registers that are used on our measured rate lines.

In the entire A board we have a total of 114 positions, divided up as follows: Nine positions devoted entirely to nickel service and equipped with standard coin collecting and returning devices, twenty-nine measured service positions which are equipped with standard registering devices, and seventy-six flat-rate positions. A number of our flat-rate positions are used to handle incoming ring-down trunks from the neighborhood magneto offices.

Tandem Board

The Tandem board has sixteen operators' positions and 500 outgoing and 400 incoming trunks, arranged twenty-five trunks per position. The circuits on this board are all special and an article written by Mr. Lambert appeared in the January issue of the BELL TELEPHONE NEWS describing the circuits of this board and their operation in detail.

Information Board

This board is also of special design and was at one time used as a toll recording board and was later converted into a special board to be used for handling information calls from all city offices. It is unique in design and consists of a long table having the trunk jacks mounted with the springs in a vertical position in the top of the board, face up, so that an operator will have ready access to calls appearing at either side of or across the table from her. This board has a total of twenty-four operators' positions arranged twelve on each side and a total incoming trunk capacity of 160 trunks.

Official 300 Board

This board, up to a few years ago, consisted of ten positions, which was the original installation, and along the side of it was a six-position board used to operate the City Hall telephones. As the business in both the Chicago Telephone Company's general offices and the City Hall increased it became necessary to add to both boards, and as there was no room for growth on the City Hall board it was decided to install a new City Hall board of eight positions and use four positions of the old City Hall board for Chicago Telephone lines. The remaining two positions were used to operate the lines of the A. T. & T. Company's general office. As the growth of the telephone company's business was very rapid it soon became necessary to remove the A. T. & T. Company's lines to two positions of the Main A board so that at the

board are bridged to corresponding jacks on the Official 300 board, so that calls originating on the Official 300 board may be completed to the other board without double trunking.

City Hall Board

The City Hall board at the present time consists of five sections or ten positions, one section having been added during the past year. It has a subscribers' multiple capacity of 300 lines, an outgoing trunk capacity of 700 trunks, and has eighty incoming trunks and 400 answering jacks. This board is of a type similar to the Official 300 board, also having a special incoming trunk circuit.

The above mentioned boards are all operated from one set of batteries, which consists of eleven cells of type 43-G with twenty-one positive and twenty-two negative elements and are rated at 3,360 ampere hours.



USING NEW LIGHT IN VAULT

present time the telephone company is not only using the entire sixteen positions but recently has installed an additional board of four positions in the Commercial Department, on the first floor of the New Telephone Building, known as "Official 200."

The Official 300 board consists of eight sections or sixteen positions of switchboard and is equipped with 800 subscribers, and 1,000 outgoing trunk multiple jacks, 120 incoming trunks and 800 subscriber-answering jacks. The circuits on this board are all special, except the cord, which is a standard A board cord circuit. This board is also equipped with incoming long-distance trunks so that direct long-distance communication may be had with any of the local terminals without loss in transmission due to double trunking.

The Official 200 board is of the No. 35 type, four positions equipped with forty incoming and forty outgoing trunks, 160 subscribers' multiple and 140 answering jacks. All the local terminals of this

The charging machines are located in the basement and consist of two 30-volt 600-ampere generators directly connected to 220-volt direct current motors and both are of the W. E. Co. type. As our discharge during the day exceeds the output of the generators, charging is done between midnight and 6 a. m. and during the day we simply float the load. As we have outgrown our present power plant, it has become necessary to increase the capacity, and work has already been started installing an additional set of batteries and charging machines that when completed will double the capacity of our present plant.

In addition to the plant that I have already described, we still have a few more specialties to look after, the largest of which is in the operator's school, located on the third and fourth floors of the Toll Building. All the circuits in this board are special, making it difficult to maintain and it consists of the following equipment:

27 A positions.

- 4 B positions.
- 3 Neighborhood exchange positions.
- 10 Teachers' desks.
- 12 Chart positions.
- 118 Seats with telephone equipment.
- 2 Teachers' desks with telephone circuits and 30 No. 92 keys each.
- 1 Section of dummy board.

The above equipment, together with the assembly, dismissal and fire alarm bells and other minor circuits, takes up the greater part of one man's time to maintain.

At Main Office we are also responsible for the maintenance on all private lines in the city, as well as all long-distance loops and leased wires of the A. T. & T. Company running through the cables of the Chicago Telephone Company. When one of these lines goes in trouble we make the necessary tests and refer the trouble to the exchange in which the trouble is located, to be cleared. Where a line does not pass through our main frame we have to depend on one of the other offices to make the necessary tests for us.

The importance of this branch of the service, together with the indirect manner that we have in getting the trouble cleared, gets us into hot water very often.

I may mention here that we are also charged with the responsibility of maintaining all electric clocks, annunciators, door openers and electric time stamps throughout the general offices in the three buildings. We are also responsible for the clearing of trouble on the service observing board which consists of six position of special board with a total of 140 listening wires to city offices ranging anywhere from three to fifteen wires to an office.

The traffic force at Main Office at the present time consists of 411 operators, fifty-three supervisors, three chief operators, three clerks, eight matrons and of 479 employees.

The maintenance force at the present time consists of the wire chief, assistant wire chief, one clerk, two framemen, ten switchboardmen, one switchboard janitor, and sixteen repairmen, or a total of thirty-five regular employees.

In conclusion I wish to say a few words concerning my force. In order to care for a plant of this size with such a varied combination of complicated circuits as we have on some of the units just described, you will agree that we must necessarily have a highly trained force of genuine telephone men, and a force that is flexible, that is, each man must be thoroughly familiar with the circuits of each and every unit in order to handle properly the routine repair work and still be able to cope with an emergency that may arise when alone in the office or at any other time.

Track and Field Meet

The annual Dual Track and Field Meet between the Western Electric Company and the Chicago Telephone Company employees, was held Saturday, September 6th, at the Western Electric grounds.

One of the largest and most enthusiastic crowds that ever witnessed one of these dual meets was present. Fully 500 enthusiastic Chicago Telephone Company employees turned out with pennants and cheering words for the contestants.

The meet was one of the most successful that has ever been staged, as evidenced by the close scores and spirited competitors in each event.

The largest point winner for the West-

ern Electric Company was Irish, who won the All Round Championship which was being contested for by the Western Electric employees. The largest point winners for the Chicago Telephone Company were E. J. Brown of the Branch Exchange, and F. V. Degenhardt. Each won ten points. Brown was the winner of the 100-yard dash and the 440-yard run, while Degenhardt won his ten points by taking the shotput and the high jump events.

H. L. Miller of the traffic department, did especially well in the high and low

Office Boys' Outing

Mr. and Mrs. H. N. Foster again entertained the Chicago office boys at a beach party at Rogers Park on Saturday, September 13th. The invitation was accepted by fifty-five boys from the various departments.

Harold H. Smith was in charge of the arrangements and was assisted by Messrs. McCorkle, Harrison and Zielinski of the Traffic Department. The beach near Mr. Foster's residence was the



CHICAGO OFFICE BOYS AT PICNIC

hurdles, winning eight points for the Chicago Telephone Company team. Other point winners were D. M. Swift, O. R. Benson, G. H. Corbett, M. D. Walling, W. L. Schrader and R. Day.

One of the events that aroused great interest and enthusiasm was the relay race. The Western Electric runners gained quite a lead in the first three laps, and when Brown started on the fourth lap the Western Electric runner was 25 yards in the lead. Brown, who is a very strong runner, gradually cut down the lead, and if the runners had had a little further to go, he would have won; as it was he finished a scant two yards behind the Western Electric contestant.

Mr. Halberg's performance on a high bicycle, which was greatly appreciated by the large crowd, received so much applause that he was compelled to give an encore.

One of the features of the day was the rooting of the Chicago Telephone Company enthusiasts. About thirty men under the able leadership of R. M. Bennett "pulled" and "rooted" for the telephone contestants all through the meet.

The tug-of-war contest, which seldom receives but little mention, was a hard fought match. The Chicago Telephone Company men, although heavier than the Western Electric men, could not withstand the systematic team work of the Western team. The Western Electric men had no walk-away in the match, but they must be given credit for the manner in which they won.

The tennis games, which did not figure in the score were won by the Western Electric Company. The winners for double matches were all close and well contested.

Ada Long repeated her last year's victory by taking the ladies' singles medal, which reflects great credit to her, because of the disadvantages that she had to overcome.

scene of the festivities and a huge corn roast the center of attraction. In addition to the roast corn and potatoes, Mrs. Foster had prepared a delicious luncheon of sandwiches, eggs, cake, coffee and fruit.

After luncheon a number of contests were held. A summary of the winners follows:

Leap from tandem race won by team—Mr. McCorkle captain.

Hundred-yard dash—Won by Lester Gogerty, Publicity Department.

Wheelbarrow race—Edward McCullough and Fred Mondt, Auditing Department.

Relay race, nine laps, won by the following team: Arnold Brand, Traffic; Fred Schmidt, Traffic; George Baker, Suburban; Gus Johnson, Suburban; John Thurnes, Suburban; R. Dieber, Suburban; Joseph Gold, Suburban; Elmer McCormick, Suburban; Ray Horner, Suburban.

Three-legged race, won by Joseph Gold, Traffic; Arthur Shever, Auditing.

The indoor baseball game was hotly contested and only won by a desperate rally in the eighth inning by the following team:

E. Thurnes, p; R. Dieber, c, Capt.; C. Votaba, 1b; E. McCormick, 2b; Hickey, 3b; Harner, rs; Johnson, 3b; Gold, rf; O'Shea, lf.

The score was 8 to 7.

The winning team's pitcher was hit hard but good support in the pinches kept runners from scoring.

The party broke up about four o'clock, all the boys voting that it was a splendid success.

Mr. Foster was unexpectedly detained in the afternoon at the Birchwood Country Club until the boys had gone, a fact which Mr. and Mrs. Foster much regretted as they wanted to say goodbye and invite them all to come again another year.

Tuberculosis

By Dr. Alvah H. Doty, Medical Director, Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company

There is no disease with which the public is more familiar than tuberculosis, or phthisis, commonly known as consumption. The frequency with which it occurs is indicated by very carefully prepared statistics relating to this subject, which show that one of every seven deaths throughout the world is due to tuberculosis, and at least 150,000 persons die of this disease in the United States every year.

From this rather depressing statement we turn to the more comforting part of the subject, for the purpose of this article is rather to describe the means by which tuberculosis is transmitted and to show how it may be avoided, and if a person is unfortunate enough to contract the disease, the hope of recovery that is extended if the infection is early detected and the patient promptly and properly cared for.

For centuries tuberculosis has been described in medical literature, and various theories have been suggested as to its cause. Its infectiousness has long been suspected, for as early as the seventeenth century the bedding and clothing of consumptives were burned to prevent danger from this source. The belief that tuberculosis is hereditary, and may appear in various members of a family as a result of this cause, has until recent years been generally accepted, and the appearance of the disease in the past has been largely explained in this way. Many other theories have from time to time been advanced as to the cause of tuberculosis, but the true means of infection was not definitely determined until about thirty years ago, when Dr. Robert Koch, of Germany, presented as the result of his researches conclusive proof that this disease is caused by a specific germ or organism, scientifically known as the tubercle bacillus. This organism is a little rod-shaped body, which is revealed only by the microscope, for it is so small in size that it would require almost three thousand of them placed end to end to fill the space of an inch.

This important discovery was quickly followed by most active and extended investigation throughout the world, in order to secure further information as to the habits of this organism, its power of resistance, and the manner in which it may be destroyed. It has been proven that tuberculosis is contracted only through the medium of the tubercle bacillus, and that heredity plays no part in its transmission, although a naturally weak resistance may descend from a parent to children, and in this way render them more susceptible to this as well as other diseases. The value of this knowledge cannot be overestimated, for it enables us to deal directly with the only cause of infection.

Later results, largely through the indefatigable work of Dr. Koch, have shown that animals and fowls are also affected by certain forms of tuberculosis, although it is only the bovine variety, or that which occurs in cattle, that concern us, for in this instance the tubercle bacillus is similar to that found in the human being and may be transmitted to the latter through the medium of infected cow's

milk. In some uncommon instances diseased meat may cause infection, although the latter is a very unimportant factor, for meat is cooked before it is eaten and the germ is thus destroyed; besides, meat prepared for sale is now under careful official inspection.

Children suffer from infected cow's milk, for it is probable that more than one-quarter of all cases of tuberculosis occurring under five years of age are contracted through this course. For various reasons, adults rarely, if ever, contract consumption in this way. Therefore, while the milk from infected cows is a dangerous factor in the transmission of tuberculosis in very young subjects, it is insignificant compared with the infection conveyed from one human being to another, for by this means more than ninety per cent of all cases of tuberculosis are contracted. For this we are individually largely responsible, for by proper care and the observance of modern sanitary regulations the number of cases of this disease can easily be reduced.

While tuberculosis may attack various tissues of the body, it usually selects the lungs for the seat of its operations, and it is this form of the disease with which we are chiefly concerned in connection with its prevention and cure.

The germs of tuberculosis upon reaching the lungs multiply rapidly and cause local inflammation and subsequent loss of tissue, which is responsible for the cavities formed in the latter stages of the disease. This broken-down tissue, containing tubercle bacilli, is thrown off with the expectoration or sputum, and it is through the medium of this matter that infection is transmitted.

It would be impracticable even to attempt to enumerate the various avenues by which infection is conveyed from one person to another. Tubercular expectoration in the street, the expectoration of consumptives within their homes or in the workshop, articles which are used in common in connection with food and drink, infection by unclean hands and by other means of contact, are among the media more commonly referred to. We have learned much in regard to the germ itself which has a direct bearing on this part of the subject, for careful experimental work has shown that when the bacilli are exposed to sunlight and fresh air they succumb within a very short time; but when the sputum is deposited within the house, particularly where the apartments are badly ventilated and where there is but little or no light, the germs may retain their vitality for a long period. This teaches us that the danger of contracting the disease is not in the open air, but within the house or workshop. Therefore, tuberculosis is an indoor disease, for the various factors which are needed to favor its transmission and prolong the life of the tubercle bacilli, in the way of overcrowding, improper ventilation, uncleanness, etc., are found here. For this reason also tuberculosis is a class disease, for the conditions just referred to are found chiefly among the poor, who are by far the most frequent victims of consumption.

The question is very naturally asked, Why, if the germs of tuberculosis are so generally distributed, do so many of us escape infection? The truth is we do not escape it, for it is quite certain that a large per cent. of all who have reached adult life, particularly those who live in cities or large towns, have been infected with this organism, although only a certain proportion present evidence of the disease. This is principally due to a good, healthy resistance on the part of the tissues, upon which the bacilli make but little or no impression. This condition is also constantly occurring in connection with other infectious diseases, such as typhoid fever and diphtheria.

Within the past few years conclusive proof has been presented that persons known as "carriers" contain infectious organisms within their body, and while apparently in good health commonly transmit disease to others. There is no doubt that our protection against tuberculosis, as well as against other diseases, depends largely upon a substantial resisting power. Of this we have much proof; for instance, it is well known that tuberculosis very commonly follows a debilitating disease or a condition which for the time being diminishes the vital forces.

The importance of maintaining a natural resistance to disease in the way of good health has been repeatedly referred to in previous articles relating to value of fresh air, sunshine, exercise with proper expansion of the lungs in order that these organs may be increased in power and properly ventilated, good nourishing food, and careful attention to the digestive organs in order that food may be properly assimilated, and the avoidance of all excesses in order that the system may not be weakened. This plan does not intend that we shall live in a restricted or in an unpleasant way, but that we shall preserve a normal condition of health by careful attention to personal hygiene. Other preventive measures, so far as tuberculosis is concerned, relate chiefly to protection against infected sputum in instances where there is reason to believe cases of known or suspected tuberculosis are present. This may be secured largely by the avoidance of articles which may be used by those who are infected, and which may transmit the organism to the mouth of others—cleanliness not only of the hands, but in various other ways, is of great value in this direction.

Beyond these and other reasonable precautions, we should dismiss the question of infection from our minds and not expect to find it lurking everywhere, for this does not occur. Furthermore, the danger of contracting tuberculosis in the street or public places or conveyances need cause no alarm, for its importance is greatly overestimated. It is rather in the home or workshop where we must deal with the infection of this disease.

The cure of tuberculosis depends chiefly upon the recognition of the disease in its early stages, for then it is far more successfully dealt with, as but little of the lung tissue is involved in the pro-

cess of destruction and the general health of the patient is not seriously impaired.

There is no other disease where recovery rests so largely in the hands of those who are infected as tuberculosis, for there is no remedy in the way of medicine, vaccine, serum or any other agent which can be depended upon for aid in the cure of this disease. Advertisements relating to so-called consumptive cures are being constantly presented to the public; these nostrums are offered for sale with the most attractive testimonials. If those who are being misled by these worthless agents could know the lives that have been lost by depending upon them until it is too late to derive benefits from proper sources, it would go far towards exterminating this menace to the public health.

While the cure of tuberculosis depends chiefly upon the efforts of the patient, it is imperative that he shall be under medical direction and supervision, at least until he has learned the discipline of the care and treatment of the disease. It is not expected that a layman will be able to recognize tuberculosis in its early stages, but whenever a person finds that his general condition is becoming impaired—by such evidence as loss of weight or appetite, irritability, fatigue, continued cough, etc.—he should without delay consult a physician, whether or not there is any evidence of pulmonary trouble, for in the beginning of the disease attention may not be attracted to the lungs. Dependence upon home remedies in these instances is unfortunately widespread, and is to be condemned, for it frequently involves danger to those who are disabled. This does not refer to the careful and valuable nursing one may receive at home, but rather to the absence of proper medical supervision. Aside from the protection to the patient which this extends, it is economy to promptly seek medical advice, for by this means recovery may be sooner effected.

By following the above course, tuberculosis may be promptly detected and a well-organized campaign may be planned for the cure of the patient. This will involve instruction regarding the best and most practical means of obtaining fresh air, rest, and good nourishing food—which constitute the most valuable factors in obtaining successful results. These instructions should conform so far as practicable with the financial and social conditions of the patient, who will also be instructed as to the danger of infected sputum and what he shall do to destroy it, and how to protect others against infection from this source. Under certain conditions and proper advisement, the patient may continue his work without special injury to himself or to others. In cities and large towns dispensaries and clinics may be found for the treatment of the poor; therefore there is no reasonable excuse why a person in any station of life should not be able to secure early medical attention.

Parents and guardians have an important duty to perform in this direction, for tuberculosis occurs principally in early life, and any apparent deviation in the health of those under their care should call for a prompt and careful physical examination. It is also the duty of an employer to carefully observe the physical condition of his employes, not only in the interest of those who may have tuberculosis or other infectious diseases, but for the protection of the associate employes as well as the employer himself, for the minimum amount of sickness means more satisfactory and

less interrupted service and really constitutes an economical factor.

A word may be said as to the danger of infected milk and the means by which it may be prevented. In cities where we must depend upon a supply from innumerable dairies, we cannot be sure of milk which is not contaminated, except in instances where a large and often a prohibitive price is demanded. For this reason we must resort to domestic means of protection against infection from this source, particularly where there are

should not make use of this test in order that milk infection may be prevented. Cows should not be purchased unless a proper and satisfactory certificate is presented to the effect that a tuberculin test has been made with a negative result.

It needs but a superficial study of tuberculosis to show that the disease may be prevented and cured if proper means are employed. Prevention depends chiefly upon a formidable resisting power on the part of the body, which it is not difficult to maintain if careful attention is



CUT-OVER FORCE AT QUINCY, ILL.

children in the household. Pasteurization is generally accepted as the most practical and simple means we can employ for this purpose. Boiling is sure to destroy all germs which the milk may contain, but it renders less valuable some of its nutritious constituents. Therefore, for prolonged use, Pasteurization should be selected. This process consists in subjecting the milk to a temperature of 150 degrees for twenty minutes, then placing it on the ice. This temperature does not affect the milk as when boiled, which requires a temperature of 212 degrees, but it is quite sure to destroy the tubercle bacilli and render harmless other forms of bacteria which may be present. The details of this process, which have already been given in a previous article, are as follows: The bottles containing the milk, properly sealed, may be placed in a pan of water, the latter being raised to a temperature of 150 degrees and kept at this point for twenty minutes. The bottles are then to be removed and placed in the ice box, close to the ice. As a matter of economy so far as the ice is concerned, the temperature of the milk may first be lowered by subjecting the bottles to a flow of cold water.

The use of powders or other mixtures advertised as preservatives of milk should be avoided, for they cannot be depended upon and may do considerable harm.

Modern sanitation demands that cows shall be kept clean and under careful observation, and that every reasonable means shall be taken to detect the presence of tuberculosis among them, for, as in the human being, this disease in its early stage is frequently overlooked. The tuberculin test constitutes a valuable and scientific means of detecting this disease in cows, and when injected in these animals a certain reaction follows if the disease is present, and as its accuracy may be depended upon, there is no valid excuse why private owners or dairymen

paid to personal hygiene. The cure of tuberculosis depends upon prompt and proper medical advice and guidance, and strict attention to regulations which are prepared for the welfare of the patient.

When the public have learned how much can be done in this direction and the value of their cooperation, there is but little doubt as to the aid which will be extended in the extermination of this disease.

Record in Clearing Trouble

On the evening of August 21st a storm of cyclonic proportions struck Wentworth Exchange District, Chicago, crippling the plant so badly that a general distress signal had to be sent out for help and repairmen from all over the city were detailed to Wentworth to clear up the trouble. On August 23rd sixty-three repairmen and four line gangs were kept busy outside and twelve men inside. This force disposed of 1,806 cases of trouble, counting cases that came O. K., and cases of actual trouble. The next day, August 24th, was the record day; sixty-three outside repairmen, sixteen inside men, and four line gangs disposed of 2,076 cases of trouble. Actual trouble was found on 649 of these and the others consisted of circuit duplicates and cases upon which no trouble was found.

Getting a "Rep"

A Germantown, (Pa.) troubleman, finding a loose cord tip on a receiver to be the only trouble on a subscriber's line, repaired it so quickly that the subscriber remarked:

"You did that so quickly and accurately, perhaps you can get a needle out of my little boy's finger. The doctor has been working two hours and hasn't located it yet."

Prompt Work of Bell Employee

"For all 'round capacity for doing the right thing at the right time, commend me to 'The Telephone Man.'"

This was Vice-President Burt's comment on reading a letter giving an account of a thrilling rescue by F. J. Wiggert, wire chief of the Wisconsin Telephone Company at La Crosse.

On June 29th Mr. Wiggert, with his family, had been on a fishing excursion to the Y. M. C. A. camp located on the west channel of the Mississippi River, about two miles west of La Crosse. Late in the afternoon he heard cries of distress from another fishing party near by. Quick work at the oars brought Mr. Wiggert to the scene of trouble just in time to rescue and resuscitate a drowning woman. This is Mr. Wiggert's interesting account of the occurrence.

"I saved the life of Mrs. Pierce by following out the new resuscitation rules carefully.

"Myself and family went fishing in the west channel of the Mississippi at a place called the Y. M. C. A. camp, about two miles from the city. It was a very hot day and the fish were not biting very fast, so about four o'clock we quit fishing and went to the west bank of the channel and lay down in the shade. We had been there about an hour when the party south of us, with their children, went across the channel and landed on a bar three blocks south of us and went in wading. The place was concealed from us by a bunch of willows on the sand bar. The children were making considerable noise and we did not pay much attention to them. All at once I heard some one cry for help, repeat it three times and quit. I said to Mrs. Wiggert: 'There is some one crying for help.'

"Just then another boat came by. I told them to turn back as some one was drowning. They did so.

"I threw all my fishing tackle out of the boat and rushed to the place. When I arrived there all that could be seen was a bubble of cloth in the water. I got stuck with my boat in the shallow water, so I jumped out and ran to the place. When I got within fifteen feet of the lady I stepped into fourteen feet of water all of a sudden and was forced to swim back. I then told the boys in the other boat to drag their boat over the bar, which they did. We got the woman out of the water. I picked her up and laid her on her stomach with her head down hill. Her mouth was open, her tongue touching her lips. I then started the prone pressure method of artificial respiration. For fifteen minutes there was no sign of life, but I kept on working. After five minutes more I could see signs of life. Before a half hour was up she could talk. The first thing she said was, 'Where is Warren?' That was her little boy. All this time I did not know anybody else had drowned. I saw then that she was out of danger, so I rowed back and got my fish poles and dragged for the boy. The first thing one of my lines got caught on something. I pulled it up and was surprised to find the body of a man. This was the lady's brother. I pulled him in the boat and rowed to shore. By this time the city officials were there with the pulmotor. They worked on the man, but without success. He was in the water about one hour.

"I then kept on looking for the boy. After dragging about fifteen minutes I hooked him, but when I reached to grab him the hook let loose and he sank again. There was a government workman on the scene who dived and brought

the boy up. The boy was in the water about one hour and fifteen minutes. Nothing was done to try to bring him to life. No warm clothes or stimulants were used on the lady."

Dealing With the Public

By J. E. Bonell, Manager at Eau Claire, Wis.

In dealing with the public there is but one fundamental principle involved and that is to satisfy them. To accomplish this end we must bear in mind at all times that we are employees of a public utility, dealing with the public in general and are therefore to a certain extent public servants. The position of a commercial employee in this regard is somewhat different from that of a plant or traffic employee inasmuch as a great percentage of our dealings are face to face where the employees of the other departments confine themselves to a greater extent to their conversations over the telephone.

It is no doubt the latter condition that at times makes the task of the commercial employee the harder. To illustrate: The traffic department is the one with which the public comes in contact most frequently and any complaint of service generally originates in this department.

It is very often the case that the subscriber gets into such a frame of mind that any little inattention will be readily magnified to the extent that he will feel that his service is neglected, and, if the tone of voice used by the operator does not have the "rising inflection" he will immediately note it, and add to his complaint.

This and other matters which may arise from time to time such as collections, charges for moves, overtime on toll messages, etc., have a tendency to bring the matter to the commercial department, either as a first or last resource, and it is usually the case that by the time it does reach the commercial department (especially traffic complaints) it has worked upon the mind of the patron, to the extent that he forgets himself for the time being, and allows his temper to get the best of him.

At this stage the commercial employee must remember, as I stated before, that he is the employee of a public utility and a public servant who has been placed in his present position by his employer, to act as a representative of the company, and his greatest task is to satisfy the public. Never allow the spirit shown by the party making the complaint to invade your methods, remember at all times that "the pleasant voice turneth away wrath," and above all display to the greatest extent your interest in the particular complaint, as nothing adds more to the dissatisfaction of the party complaining than to have his complaint received with indifference.

By showing interest in his case and explaining in detail the different workings of our business, which directly affect his complaint you will find that the result obtained is a thoroughly satisfied patron and one by whom, in the future, the small irregularities will be overlooked.

Every day of our lives we have some case similar to the above, and though it may not be due to the same causes, when it is brought to our attention the same methods in handling it should apply.



J. E. BONELL

J. E. Bonell, manager at Eau Claire, Wis., first entered the employ of the Wisconsin Telephone Company October 1, 1906. He had been with the United States Express Co. for five years, working up from driver at Eau Claire to night agent at St. Paul, Minn., resigning the latter position on account of ill health. For the next year he traveled for a mercantile house in Northern Wisconsin and Southern Minnesota, but desiring to enter some business with an opportunity for advancement he left the road. From October 1, 1906, to November 1, 1907, he worked in the telephone exchange at Eau Claire, advancing from installer's helper to installer, inspector, chief installer and assistant wire chief. On November 1, 1907, he was transferred to Stanley, Wis., as manager, remaining until February 26, 1909, at which time he was transferred to Menomonie, Wis., as manager. On March 16, 1911, he was transferred to Eau Claire, Wis., his present location.

If the subscriber should call over the telephone, rather than to make a personal call at the office, we should follow out the same principle in endeavoring to satisfy him or her in the most pleasant way possible, bearing in mind always that the handicap is much greater than it would be if we were conversing with them face to face. If we ourselves are not absolutely sure that the proper result has been obtained, a note should be made and a personal call will secure the result in a majority of cases.

I enumerate below a number of the very important items to be considered in securing that desired result "A Satisfied Patron."

Always retain your self poise and never allow your temper to get the upper hand of you.

Always give every complaint your very earliest attention.

Never make a note of a complaint and then throw the note aside without giving it proper attention.

Always report promptly to the subscriber the result of your findings, as to overlook this will add to his dissatisfaction.

Never make any promises that cannot be fulfilled. (This would apply principally to solicitors or other employees securing contracts or change orders). Bear in mind always that it is the first impression that remains with a patron and any promises not kept tend to place him in an antagonistic frame of mind from which recovery is slow.

Chicago Electric Club Picnic

The men, and the women, and the boys and the girls of the Chicago Telephone Company "grabbed off" nineteen out of a possible fifty prizes at the annual picnic of the Chicago Electric Club, held at Shermerville, August 21st. One of the women "tangoed" into second place in the dancing event of the day, carrying off an expensive prize, and two of them took all the honors in the slit skirt race, taking first and second prizes. First and second honors in the bowling contest for women went to the telephone crowd and the big prize in the ball throwing contest for women went to one of the same party.

It was a great picnic and a great crowd, representing all of the electrical trades in Chicago. There were two big special trains and many made the trip by automobile. Much of the credit for the huge success of the day must be credited to George Markham, chairman of the entertainment committee, who was picked for the job because he makes entertainment a specialty.

The picnickers were equally fortunate in having Harry A. Mott for master of ceremonies. There were so many events on the program that it needed a team like Markham and Mott (sounds like vaudeville) to get them all out of the way this year. R. M. Bennett was official starter, assisted by Fred B. Duncan, and jointly they kept everything moving at a pace that made things hum and great credit is due them. Robert Cline operated the wheel of fortune so cleverly that he made the amusement park professional look like a "two-spot." Charles H. Kehnth was his side partner on the job, and between the two everybody got a laugh and a prize. Charlie Stone bought paddles like a J. Pierpont Morgan. T. B. Lambert was popular with the women because he was taking photographs, and he succeeded in deftly humoring a few of the wise ones with three little shells and a pea. L. C. Jones conducted the bowling contest and being some bowler himself he secured the second prize, Mr. Shaver getting the first place, knocking down forty-six pins with five balls. Among the other telephone company prize winners were the following:

Mrs. Hart was looked upon as the best woman athlete on the grounds, winning the fifty yard dash, and second prize in the bowling contest. Marion Sharpe was second and Miss Merrill third. Miss Sharpe was also second in the egg race for women.

Mrs. Van Scoy was first in the bowling contest for women making forty-five pins with five balls. Mrs. L. C. Jones won the slit skirt race and her sister, Pearl Bellew, got the second prize in the tango contest. Hester L. Bone was second in the slit skirt race and second in the egg race. Pretty good for the Bone family. Mrs. C. N. Hodge was first in the ball throwing contest for women, and Masters Miles Vranek and Marshall Webber took first honors in the three-legged race. Masters Halberg and Persons were second. A. G. Winsworth was first and C. L. Norton second in the 100-yard dash. Master Earl Halberg got the first prize in the ball-throwing contest. The boys of the Vranek, Webber and Halberg families thus made a considerable showing.

Joe Vranek was the most popular man among the ladies and children as he was handing out candy, ice cream, lemonade and also a lot of other articles which added to their amusement and happiness.

The maintenance department is credited

with eight of the nineteen prizes won.

These are only a few of the people interested in the electrical line who attended the picnic. The prizes were everything electrical from a curling iron to a washing machine.

Not a Cigar Stump

The old stump shown in the picture has risen again after being buried for thirty-eight years. It was uncovered by the Chicago Water Pipe extension gang while digging a trench along the north side of Washington Street, Chicago, along the curb wall of the Bell Telephone Building.

Two of the men digging in the trench for the City Water Department were Jerry Murphy and Moses Goldstine.

Jerry Murphy claimed the pole and said it was a piece of the north pole.



RELIC OF BYGONE DAYS

Moses said his father told him there were Indians, living and camping all around there and it must have been an Indian tent pole.

To settle all argument, it has been ascertained that the pole was a fifty-foot white cedar pole set by the Western Union Telegraph Company about the year 1875. This pole line was built on the north side of Washington Street, between La Salle and Market Streets, and carried about eight cross arms supporting from fifty to sixty No. 8 and No. 6 iron wires to the West Side through the old Washington Street tunnel, using Okonite wires through the underground portion.

In the year 1887, the Western Union removed this pole line, chopping off the poles close to the paving. The company found it more desirable to cut off the poles at the street surface than to dig them out and repave the street.—Thomas H. Crowley, Chicago Plant Department.

The Child Deserved It

Father—Why are you spanking Willie? Because he swallowed the nickel?

Ma—Yes, I am. He could just as well have swallowed a telephone slug and saved the nickel.—*Chicago Daily News*.

"Music to Soothe the Savage Beast"

The following vernacular contribution to the argument now going on in Michigan over advance telephone rentals appears in the *Sunday News*, of Port Huron, Mich., under the heading above:

"A real good citizen came into the office the other day, with electricity in his hair, and a grouch on that was worth four dollars of any man's money who wanted a real nice grouch. We asked the good fellow why all this boisterousness, and he says, the telephone company demands that I should pay three months' service in advance. And he didn't think it was right. Now right on the face of that if you go no further, and don't stop to think, and are not willing to give the other side a show, it don't look good, but let us stop and think for a moment. If you go into a dry goods store, and you want something you go and pay for it, and then you wear it out. You go into the grocery store and you do the same thing. You go up to the city hall and pay your taxes, you pay every year in advance. You buy a railroad ticket, you pay for it before you get on the car and then you ride it out afterward, and then there is that journey through life, with some fair young bud, the marriage license is a cash transaction, and then you pay the preacher in advance, and we might go on and enumerate and call the reader's attention to one thousand and one other things, where the muxooma is put up before you get the goods, and it would be a good deal better, a d—d sight better, if there was more cash on the spot business. There are days that in our little carting and trucking business in connection with our newspaper, where we have earned, and it has cost us twice as much to get a little bill that was perfectly good, as the account called for. Now why isn't it reasonable for the telephone company to exact their pay in advance? And when you stop to consider for a moment it is not in advance, you are using the phone every day, the same as the suit of clothes you buy and pay for in advance, you are getting value received for your money, and then again, let us be fair, it cost the telephone company quite a little item to put in a phone, more, probably, or as much as they get out of it for the first quarter, and supposing a man has to move, or go to some other town, and there are people that will go away and leave a phone in the house and never say a word, and if the company haven't got their money, they can whistle a nice little tune for it. If the telephone company would give good service, we see no reason why they shouldn't have their pay in advance if they demand it.

"There is no question but what the severe storms of the last few months has been the source of all the annoyance but not only the Port Huron people, but all over the state have suffered by the unusual electrical disturbances.

"Before we got through with our caller, he said, 'I don't know but what you are about right,' and he gently slid down the banister from the *News* office and landed right side up and went home sober."

Want One System

The Commercial Club of Joplin, Mo., is trying to bring about a consolidation of two competing telephone exchanges, operating in that city. Officials of both companies express willingness to combine and negotiations are one.

Death of W. W. Fisher

WILLIAM W. FISHER, former president and general manager of the United Telephone Company of Logan County, Ohio, died at Bellefontaine, September 6th. Mr. Fisher had been in failing health for several years and had retired from the active management of the independent telephone system of Logan County a few months before his death.

Mr. Fisher was one of the pioneer advocates of universal service among the independents, but on account of circumstances did not live to see his ideal worked out in his own system. In 1908 arose the litigation between the Central Union Telephone Company and the United States (Independent), Telephone Company, over the exclusive contracts for long-distance connection claimed by the latter company. Mr. Fisher, taking more advanced ground than his fellow independents in Ohio, came out publicly in favor of universal toll connections and single local service instead of the reverse arrangement at that time largely prevailing. Mr. Fisher made a public statement in which he said:

"We believe that development has reached a point where it does not need the stimulus of competition, if it ever did need such, that we may now safely depend upon the demand for service to encourage development as rapidly as it becomes profitable.

"It would appear to the average man in the telephone business that if all the time, the energy, the brains and money that is being wasted in this bitter warfare, were applied to the development of the business, the improvement of the service, the increase of facilities and the cultivation of friendly relations, and the money added to the financial resources of each, it would lead further away from bankruptcy, and contribute much more to the prosperity of all concerned."

Mr. Fisher's company was enjoined from making a connection for toll service with the Bell system, the court upholding the contract with the United States Company. This prevented the Central Union Telephone Company from discontinuing local service in Bellefontaine and thereby disappointed the hopes entertained by Mr. Fisher of bringing about a single, unified service in his home city.

Competition or Regulation?

Dissolution of the alleged monopoly enjoyed by the American Telephone and Telegraph Company on the Pacific coast is sought by Attorney General McReynolds in an anti-trust suit started at Portland, Ore. The government charges the company and its subsidiaries with absorbing independent telephone lines with a view to destroying competition and creating a monopoly in the states of Oregon, Washington, Montana and Idaho.

This is the first attempt of the government to apply its anti-trust law to the telephone business. The value to the public of a successful issue of the government's suit is not clearly apparent. In fact, it appears entirely doubtful. The telephone in the view of most men is an essential monopoly. Not competition, but regulation is what is required. One telephone system is all that any one cares to use. A second doubles the expense and constitutes a nuisance. People who doubt this view have only to ask telephone users in cities where two actively competing companies are in the field. With all the companies in the territory involved in this suit hooked up under one control, a more extended, better and cheaper ser-

vice is possible than under the competitive condition which the attorney general seeks to restore.

It is charged in this bill that the American Bell Company is using unfair methods and conspiring with willing independents to buy property far below its cost or its present value. There may or may not be truth in those charges, but it is probably also true that the Western district, like many others, has been infested by numerous half-baked, half-financed, competitive telephone enterprises that have not been able to meet running expenses in competition with the Bell lines and were willing enough to sell when their ventures proved to be failures. Monopoly in the telephone business appears to be entirely logical and for the best interest of the public and the people who invest their money in telephone enterprises. Likewise it appears to be inevitable and all that is necessary to secure the best service under monopoly is intelligent state or municipal regulation. —*The Voter.*

An Automobile Vacation

Equipment Superintendent A. P. Hyatt and Lawndale Wire Chief J. E. Martin of Chicago, and their wives, spent their vacations on an automobile trip to Buf-



MIRED AT GLENROUGH

falo and return, leaving August 30th. Mr. Hyatt desired to attend the annual convention of United Spanish-American War Veterans and Mr. Martin wished to see Niagara Falls. Each gratified his wish and had a good time on the way.

The trip was made in Mr. Hyatt's "Studebaker 30" at an expense for gasoline, oil, grease and tires of 6.6 cents per mile. The car mired in the sand at Glenrough, near Erie, Pa., and was rescued with the aid of some good-natured Sunday picnickers.

The party visited the telephone offices at Cleveland, Columbus and Dayton on the return trip.

Righteous Resentment

"The telephone and the servant girl problem are usually mixed," said Mr. von Schlegel recently to a *Detroit News* reporter. "A friend of mine had a servant who was one of the many who cause our company trouble by incessantly talking about nothing over the telephone. While the family was at dinner one day she used the telephone five times. He told her that the telephone was there for business, not nonsense, and that she was not to use it while he was home, because he expected to be called. The next morning his wife called up. 'Are you very busy?' she asked. 'Yes,' said he, 'I've got a lot of business to attend to.' 'Well,' she said, 'I do wish you would look after it and leave mine alone—our girl has quit.'"

Telephone Float Takes Prize

First prize was won by the float of the Chicago Telephone Company at Blue Island, Ill., on Labor Day, September 1st. The float was adjudged to be the best representing a business in the parade, which was a leading feature of the Blue Island Day celebration. A picture of the float appears on Page 22.

The float was designed and built under the direction of Manager A. C. Rhoades, of the Blue Island District. It presented graphically the operation of a private branch exchange. The operator was shown seated at a switchboard sending calls to eight telephones connected with the board. Throughout the parade the bells could be heard ringing as the girls kept busy answering calls. Louise Matthies, assistant chief operator of the Blue Island Exchange, acted as operator at the private exchange and the girls at the telephones were operators from the exchange as follows: Hattie Schwinn, Helen Kordewick, Ora Grandchamp, Christina Schulz and Gladys Kauffman. They were all dressed in white.

The blue and white decorations of the float added materially to its beauty and this combined with the representative character of the display itself assured the company first prize. The prize money, \$10, was given to the girls.

The Telephone in Cincinnati

A history of the telephone in Cincinnati, Ohio, and vicinity, has been published in a handsome booklet by the Cincinnati and Suburban Bell Telephone Company, and associated companies in Kentucky and Indiana.

Cincinnati's first telephone exchange opened for business September 1, 1878, with eighteen subscribers. The first subscriber was the Cincinnati, Hamilton and Dayton Railroad—a company which alone now uses many times the number of telephones operated by the entire telephone system in 1878. Today in the same territory the Cincinnati company has about 70,000 telephones. The Cincinnati company operates nineteen exchanges in the city district and twenty in the suburban district.

The booklet shows a cut of the new ten-story Telephone Building at Fourth and Hammond Streets, which will be occupied early in 1914 by the general offices of the company and the Main exchange.

Losses in Ohio Floods

A total money loss of \$163,000,000 was caused by the floods in the Ohio valley last March. The Weather Bureau makes this estimate, which includes loss to railroad, telegraph and telephone lines and to farms and farm property, including prospective crops. The latter alone amounted to about \$11,000,000. Of the total amount, more than seventy per cent. was sustained in Ohio and Indiana.

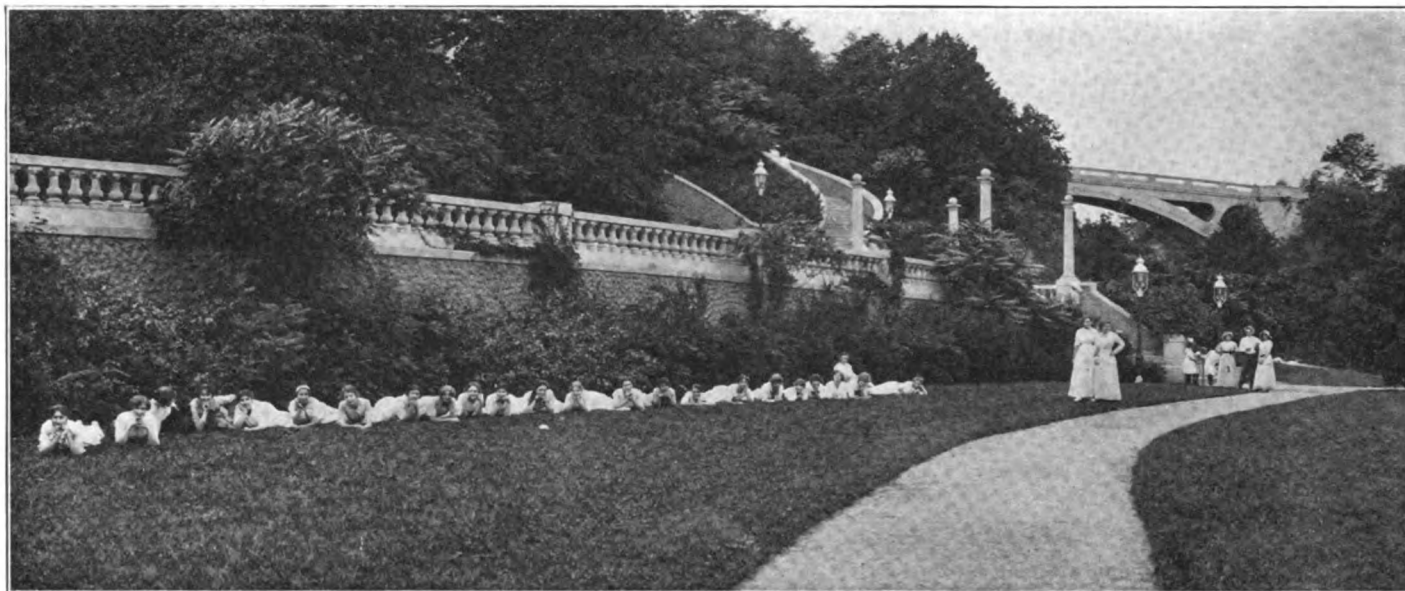
In point of magnitude the 1913 flood probably ranks second with all Ohio valley floods, being overtopped only by the midwinter flood of 1884, the report declares. In the lower Mississippi the crest stages attained exceeded all records between Cairo and Helena.—*Chicago Daily News.*

Telephone Company Sold

The Bourbon Home Telephone Company, operating in Bourbon County, Kentucky, has been sold at receiver's sale to interests identified with the Home Telephone Company, of Louisville.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst



NORTH EVENING GIRLS AT LAKE PARK, MILWAUKEE.

Universal Team Work

In recalling some of the pleasant events of a delightful vacation which took me to several cities, I remember with especial pleasure, the universally cordial response I received from telephone operators wherever I met them. The courtesy taught by telephone service was in evidence in every case but more than that when it was found that I too had a place in the Bell Telephone work, I was sure of a most friendly smile and friendly help of any kind if I needed it.

It suggested the thought of the universal team work which has grown up with this modern invention. Constantly, we realize the remarkable facility of communication which has become possible since the telephone wires have bound the world together. We know that our cities are now being built up with the possibility of this service in view. Our great sky-scrapers, our huge buildings covering blocks, our suburbs, are all planned with the telephone in mind.

But the human element, the team work of thousands and thousands of girls is something of which we may not always be conscious, unless some incident brings it to our notice. It is a thought that will inspire every girl if she stops to realize that she is one of the necessary links of the great chain that binds the world together. The telephone stands for service. It makes communication possible and every operator therefore is bringing people together. With a touch of her deft fingers, she annihilates miles of space and where she cannot herself alone complete the call, she works with the operator who can. Though the subscribers do not realize it, there may be in long distance calls the co-operation of several girls who smoothly play into each other's hands in their purpose of bringing people together. The team work, because of its perfection is not apparent to the public.

To realize that such service is really helpful—human service—redeems the

work from being merely mechanical; and to think of the world-wide relation of the great company of girls in this universal service gives a dignity to the work quite inspiring.

The magic pass word, "I too am connected with the Bell Telephone Company," always brings the friendly recognition. It is a large sorority, this sisterhood of telephone operators, and it would be an inspiration to see them all together once. But if such a thing were a physical possibility, it still could never happen, for this universal service could never stop even for a moment. The thought that night or day it never stops is in itself a proof of its value and of the rare service the operator gives. But though no such gathering can be brought about, we can strengthen the invisible bonds that bind us by realizing that we are each a part of a great whole and that our own service has a value that makes it worth while to do our best.

"Did You See Mr. Smith?"

A colored man was using a public telephone in a drug store which was also a substation of the post office. "Did you see Mr. Smith?" We were writing some cards at the desk near the 'phone and had no desire to listen, but this matter of seeing Mr. Smith was forced upon us. The telephone was not in a booth, and a private conversation was therefore out of the question. An unfortunate circumstance it was too, not only for the man who was seeking knowledge concerning the elusive Mr. Smith, but as it has been also for many others who have suffered similar discomfort in carrying on conversations of a more or less private nature in the presence of a curious but unsympathetic public. Such an experience is comparable to opening our inner being to the inspection of a critical, cynical world. To have others listen as we talk at the telephone makes us feel as if we were

having our private letters opened. We speak in low tones, but are conscious of alert attention on the part of those standing near.

Perhaps to all, even the most rigidly circumspect in the observance of all the courtesies which indicate a considerate and thoughtful soul, there is a challenge of unusual interest in the thought of that mysterious one whispering out of space to the listening one, and an effort is made almost unconsciously to patch together the whole web of conversation from the shreds and ravelings which form but part of the whole. To sensitive souls there comes, therefore, a rather serious embarrassment in using a public telephone without the friendly shelter and seclusion of a booth, for they feel that the conscious or unconscious interest of those near by constitutes an invasion of their privacy. A momentous and almost sinister significance seems to attach to the simplest question, such as asking if the butcher is sending up the beefsteak, or if little Mary is still wearing the poultice of hot mush and onions for her sore throat. It's nothing short of a high crime or felony for a man to install a telephone for public use and fail to enclose it in a booth. The need of the booth is obvious, for you might want to ask for a little extension on that note, or you might desire to tell a big burly wretch over the long distance just what you think of him, or you might want the favor of a dollar and thirty cents for a few days, or to tell the grocery man to be a good fellow and trust you for another week, and these things are best whispered in the darkness and seclusion of a booth rather than shouted from the housetops. No matter how subdued our voice may be at the telephone it sounds like thunder in our ears, and seems to have an unnatural clearness and an almost preternatural penetration.

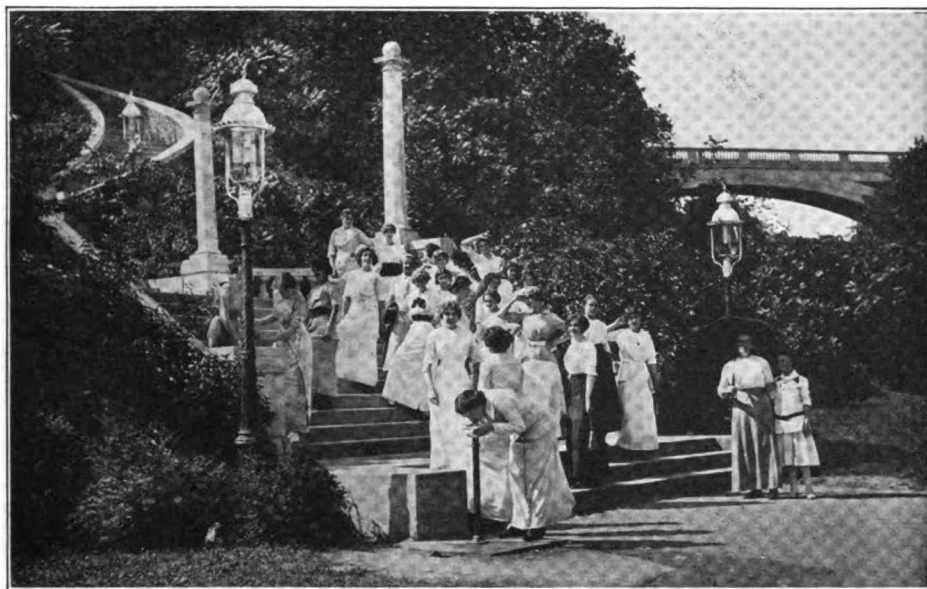
"Did you see Mr. Smith?" The first time this query was propounded to that

vast circumference beyond the drug store the voice was thick and muffled, carrying an atmosphere of mystery, with a sort of "keep-it-dark" effect. Evidently he was not understood, for after several attempts in a husky, restrained voice, to make his meaning clear, he cast discretion to the winds and talked in good round tones as though in defiance of all

of those who seek her services, but she gets a very plain view of their souls, and it's a pity that she has to view so many ugly souls. We all get peevish at times when using the telephone, but ultimately our sympathies are with central; our sympathies are with her even though her faults may be many, and though the service she affords at times may be far from

were determined with the others to be there at the finish and felt it was our duty to see to it that the notorious Mr. Smith be unearthed.

We began to speculate about Smith. Who was the man delegated to see him and why he rather than any other? In regard to what was he to be seen. What was the special disaster in which the colored brother would be involved in case Smith remained in the deep shades of obscurity? What Smith was it? Of all the vast and noble army of Smith which one might it be? Was he a doctor and was this a matter of life and death? Was he friend or foe? Did he owe the colored brother money? While we thus speculated the now almost despairing voice of the man ran with an endless variety of emphasis—"Did you see Mr. Smith?" We admitted his gameness. His pertinacity was marvelous. It was something splendid the way he kept on trying. Just then it was suddenly evident that a great light had broken in upon the party at the other end of the line. At last he understood the question. Mr. Smith had been seen. Had he paid that money? No, he hadn't paid a cent of it. Great indignation at our end of the line. The money had been honestly earned and Smith would pay or the colored brother would know the reason why. He wasn't going to fool any longer with Mr. Smith. He would put the matter in the hands of a justice of the peace. The receiver went up with a bang. And we all felt that there was real trouble ahead of Mr. Smith.—Rev. Harry Halpin Martin, in *The United Presbyterian*.



NORTH EVENING GIRLS AT LAKE PARK, MILWAUKEE.

who might hear, "Did you see Mr. Smith?" The question was repeated pianissimo, fortissimo, crescendo, staccato, and was given added variety of expression and tonal quality through the employment of labials, linguals, gutturals, falsettos.

"Did you see Mr. Smith?" Undaunted he continued to inquire with a doggedness which indicated he had not yet even begun to fight, that he would carry it out on this line if it took all winter, and that he would expect an answer as long as two copper wires in the whole telephone system hung together. "Did you see Mr. Smith?" "Did you see Mr. Smith?" "Did you see Mr. Smith?" We were all getting excited and feverish about it.

We are often horribly disappointed in the man who has a reputation for being a genial, sunny-hearted optimist, as we observe his conduct at the telephone. Alas, what feet of clay are suddenly revealed in this idol whom we thought to be pure gold. The sunshine all disappears. He suddenly grows fretful, then peevish, then vengeful, and finally murderous. With what clouded brow, with what mutterings and dire threatenings he leaves the telephone, putting up the receiver with a bang of vehemence and viciousness sufficient almost to wreck the inoffending apparatus. He leaves the telephone, having there lost his wings, his halo, and his shining robes.

And central needs all the graces compounded, for she deals continually with the stupid, the inconsiderate, the irritable, the cross, the hateful, but when the voice of patience is breathed along the wire, when gentleness begins to talk with her, when kindness speaks its healing words, when a perfect courtesy does its perfect work, what a grateful change for central, and what sudden transfiguration.

"Speak, boy," said Socrates, "that I may see thee." Central does not see the faces

a perfect service. To have a whole city screaming things in one's ears all day would be, it seems to us, an extremely wearing and debilitating experience, and about two days of that would make a maniac or nervous wreck out of the average man.

After a long struggle with central the colored man was reconnected with his

Called Firemen to Rescue Cat

Livingston Crocker, aged four years, was visiting his grandparents in East Orange, N. J., the other day. Livingston picked up the telephone and asked for the "firemen." The operator asked no questions but put up the connection instantly. Fire Chief Markwith answered



WEST EVENING OPERATORS, MILWAUKEE, AT WASHINGTON PARK

proper number. By this time we had finished writing our cards, but we were so fascinated about this matter of seeing Mr. Smith that we couldn't tear ourself away. In the first instance our interest had been casual and fleeting, but now our interest was shameless and unconcealed. We

the call and received the still alarm in a childish voice:

"Come right away to 37 Evergreen Place."

Believing that children were in danger the chief asked no questions, but soon had half of the department's apparatus

on a run to the home of Livingston's grandparents. Urged on by the childish cry for help the chief and his men made a record run. In about two minutes the fire fighters and their machines were lined up in front of the Carr house, and there was a general craning of necks from neighboring windows to see the fire.

Mrs. Clarence Crocker, who was at the house of a neighbor a few doors away,

Another Writer Visits Dr. Bell

"Don't fail to put more ice in the stove."

This is the startling remark Julius Chambers writing for the *Washington Times*, reports having overheard one servant repeat to another as he entered the home of Alexander Graham Bell during a recent hot spell.

small pipe connected with a circular tin receptacle in which was an electric fan. This small pipe, covered with asbestos, was carried to a point about a foot from the floor of the study. When the fan was started air from outdoors was drawn into the wooden box, over the ice, and forced upstairs, dry and cool.

Dr. Bell is described in the article as the man who "wired mankind together." "One would think," the writer continued, "that after a man had brought the peoples of the world into speaking communication he could rest on his laurels. Whatever scientific achievement Alexander Graham Bell may hereafter attain must suffer by comparison with his first memorable success.

"Count Kuroki was a student in this country when the telephone was young, and expressed curiosity to know if the Japanese language could be understood over its wires. He was introduced to Bell and interrogated him on that very point. The scientist advised him to have a talk over the wire with a fellow-countryman in their native language. The experiment was convincing. Kuroki and Bell did not meet again until the Count was at Portsmouth as special envoy for his nation to settle the Russo-Japanese war.

"An early use of the telephone was when one of Bell's children had croup and a physician was called on the wire in the middle of the night. The father held his sick child in front of the transmitter during a coughing spell, and a correct diagnosis was obtained.

"Bell is a man of initiative; he is always inventing."



WEST EVENING GIRLS AT WASHINGTON PARK, MILWAUKEE

ran back to the home of her parents and was in time to see her little boy replace the telephone receiver on the hook and carefully descend from a high chair. Then he ran out on the lawn and began to direct the firemen to a tree where a kitten was concealed in the foliage. Questioned by his grandfather, Livingston explained that he had heard of another little boy who had regained his pet by the aid of the firemen.

The chief and his men accepted the apology of the Carrs and went away without attempting to rescue the kitten. When the noise and confusion subsided the kitten descended without assistance.

Livingston, who is the son of Mr. and Mrs. Clarence Crocker of Orange, had learned how to use the telephone by talking over it with his grandparents.

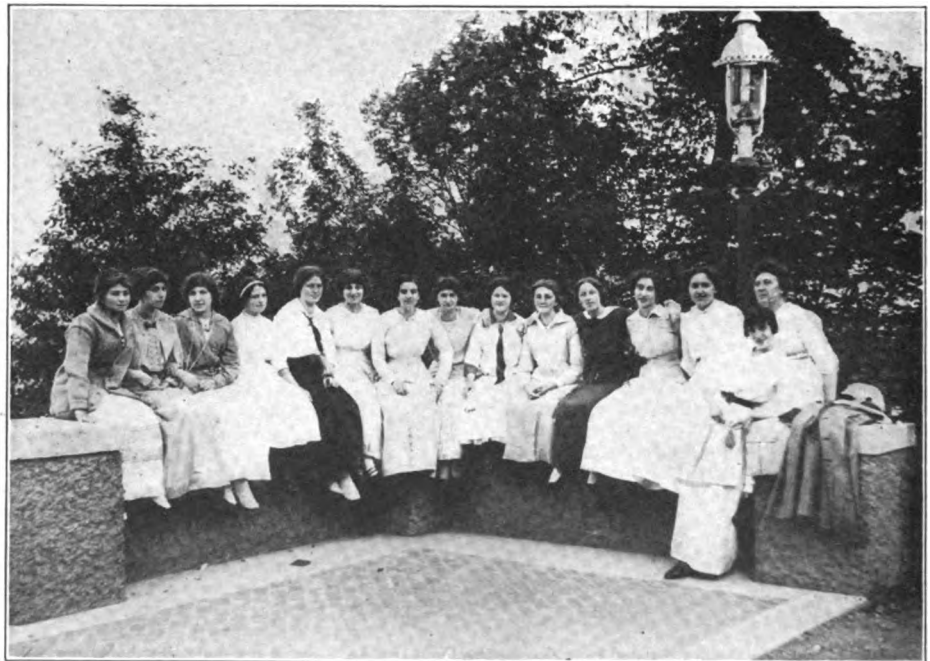
"She No Giva da Connect"

A New York Italian whose service had been suspended for non-payment, tried to pass a call during the evening and when he was told by the chief operator that she could not give him the connection he asked for police headquarters. As no questions are asked on such calls, he reached the sergeant on duty, who was much surprised to hear some one say: "Heigh Sarj., go arrest Cent. She no giva da connect. She no giva da connect."—*Telephone Review*.

Amsy's Fad

Nearly every fellow has a fad. Amsy Jones has one. He is a collector of unpaid telephone bills and this is one of the most disagreeable fads a young man can have.—*Saginaw (Mich.) News*.

Dr. Bell explained that he had installed an "ice stove." He pointed to the thermometer that registered 65 degrees Fahrenheit. His ice stove, he explained, was



NORTH DAY GIRLS AT WASHINGTON PARK, MILWAUKEE.

an air-tight wooden box, large enough to hold a block of ice, placed near a window in a down-stairs room. From one side of this box a piece of stove pipe led to the outer air; from its opposite side a

minutes. The silence was so painful that we asked him if the line was in trouble. "Oh, it's all right, working fine! I'm simply talking to my wife."—*Brown's Valley Tribune*.

Exchange of Exchanges

Jackson, Mich.:

A Jackson subscriber was disputing overtime on a long distance call. The operator told the party he could talk to the supervisor. He said, "I don't want the sympathizer. I want my call made in three minutes. When I want sympathy I don't call long distance for it."

Kedzie, Chicago:

"Number, please?"

"Wait a minute, operator, till I get the wrinkles out of the wire."

Overheard at a public telephone:

Subscriber:—Vat ish der matter mit you, operator? This is three already vonce I tell you! Two double noddings twice."

Operator: "—? —? —?"

And then: "This is the manager's office; what number are you calling, please?"

Subscriber: "Vot, again! Two double noddings twice, I say!!!"

Waupaca, Wis.:

A patron inquiring for a party, was told by the chief operator that he could be reached at "Knights." He hastily answered:

"I can't see why I can't talk to him just as well in the daytime."

Oakland, Chicago:

A subscriber who couldn't get a number called the manager and assured him that it was not possible that they were out, because "they are dead there."

Detroit:

After the cut-over from automatic service. Information operator: "This is information operator."

Subscriber: "Have you any of those telephones with all those holes in up there?"

The subscriber meant an automatic Home telephone.

Linden, Ind.:

A subscriber called central early one morning and asked why she could not get her the night before. The operator replied that at the time of night the call board was closed and that the drop had failed to throw the night alarm.

A few evenings later the same subscriber called central and asked if she would please keep the board open that night, as her mother was sick and might need a doctor.

Appleton, Wis.:

One morning recently information was asked: "Have you a subscriber six months old by the name of Smith?"

Group Picnics at Milwaukee

During the summer the Milwaukee operators under the able leadership of Elizabeth Rosche, social secretary, have been having a series of delightful group picnics.

These small parties have given more opportunity for real enjoyment than larger affairs because there could be closer intimacy and more friendly intercourse. The fact too that they were just groups of girls also made them jolly affairs and strengthened the feeling of loyalty towards the company.

They were successful too in a remarkable degree in getting beautiful pictures of the groups with the picturesque setting of Milwaukee parks. The grouping and the backgrounds chosen show that an artist must have arranged them.

Slaves to the Telephone

Her lily fingers lay lightly on the arm of her chair. He covered them with his quick, strong hand.

She turned her fair head away to hide the great tears that welled from her brimming eyes.

"Bernice," he said, with an intensity that fairly shouted, though he spoke in a whisper. "Bernice, will you let me hold this tender little hand in mine the rest of the way through life?"



A TRAFFIC GROUP AT RECENT MILWAUKEE PICNIC.

Suddenly she sprang to her feet and shook off his clinging clasp.

"There's the 'phone," she said. "Excuse me a minute."

Lighting the tenth cigar since dinner, Lester Lobbertson opened the door into the hall and listened to the muffled sounds from upstairs.

Then he turned and resumed his nervous march up and down the room.

His hands were clenched, his forehead was damp.

He halted to stare at a photograph in a gold frame, the portrait of a beautiful young woman. He muttered a sentence that was half prayer, half curse.

The door opened and a white-capped nurse looked in. There was a smile in her eyes, he saw, as he rushed toward her.

"Good news, Mr. Lobbertson," she said. "It's a—"

She paused, for the telephone bell had rung and the young man had hastened to answer the call.

"Hello! Why, hello, Jim! What's that, again? Say, I'd certainly like to, old man, but I expect to be pretty busy around home tomorrow. Have a good time without me, old sport. I hope you catch a million. Good night."

He hung up the earpiece.

"Now, Miss Brightly!"

"It's a boy," said the nurse.

At the head of the library table sat

Mr. Tulkinghorn, with a long, white envelope in his hands.

"Are we all here?" he asked, glancing around at the solemn-faced family.

They nodded, fixing their eyes on the long, white envelope.

With a grim, determined air he broke the seals, as if it took a certain amount of courage to open the will of Simeon Hulkersmelter, which it did, indeed, for if the document in the lawyer's hands had been an infernal machine charged with nitro-glycerin it would have contained no more power over the peace and happiness of those who watched so anxiously.

"I Simeon Hulkersmelter," the lawyer had begun to read, when a maid tapped at the door.

"'Phone, ma'am," she said.

"You will have to wait, Mr. Tulkinghorn," spoke the billionaire's widow, rising in haste. "I suppose it's the milliner to ask about Clara's hats."—*Newark News*.

Blind Telephone Operators

The blind telephone girl has been tried and proved a success in Baltimore. Elsie Sonderman was the first. She operates the exchange for the Sheppard-Pratt asylum.

These girls are working with the regulation switchboard, but a special new kind of board is being planned for them.

The most difficult board now operated by the blind girls is that at the Young Women's Christian Association. Like a hotel, the association club and home has 200 rooms and eight pay stations, and the blind operators are said to be as accurate and quick as other girls.

Virginia Courtesy

It happened in the Richmond operators' school. The new girl was at the 'board for the first time, and the teacher called for a discontinued number. The novice, noting the black signal plug in the multiple, reported: "That one has a 'stopper' in it; you can have the next one to it, though."—*The Transmitter*.

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Service Standing

Following are the place positions of the offices for the month of August, 1913:

First	Calumet
Second	Humboldt
*Third	Canal
*Third	Oakland
Fifth	North

*Tied for third place.

Neighborhood

First	South Chicago
Second	West Pullman

Personals

In honor of chief operator, Margaret Howe, who was transferred from Belmont to West Office recently, Miss M. Mulcahy entertained the supervisors, matron and clerks, at her home. The evening was spent in a very pleasant manner, and enjoyed by all. Miss Howe was presented with a beautiful lavalier as a token of the esteem of her former associates.

Margaret Howe, of Belmont, entertained the supervisors, matron and clerks at her home in Austin one evening recently. The principal amusement was a drawing contest. "Booby" prizes were won by Misses Schimanski and Mulcahy. The girls spent a delightful evening.

Miss Mulcahy, senior day supervisor at Belmont, resigned in August to accept another position. (Cupid not guilty.) Miss Highland entertained the supervisors, matron and clerks in her honor. Miss Mulcahy was presented with a cameo dinner ring and a bouquet of American Beauty roses.

Miss A. Durland, order clerk, at La Grange, has returned from a two weeks' visit in Ottawa, Kan., where she spent her vacation visiting relatives.

Mrs. J. C. Lange, chief operator at La Grange, has returned from Michigan, where she spent her vacation visiting in South Haven and Paw Paw.

Cupid has again found his way into the La Grange Exchange. The engagement of

the traffic clerk, Ruth Lowry, has been announced.

R. N. Patchen, La Grange district manager, spent his vacation in Elgin. Mildred Keegan, operator at Toll Office, desires to express through the medium of the NEWS her sincere appreciation of the



CENTRAL INSTALLATION TEAM

Top row, left to right: Ascher, chief score keeper; Lecture, chief rooster; Shields, 3b; Owens, r. f.; Shaw, c. f.; Rudolph, mascot. Middle row: Moersch, coach; Finnely, manager; Ireland, pitcher. Bottom row: Madden, catcher; Ryan, 2b; Seaholm, s. s.; Carney, 1b; Larkin, l. f.

many little acts of kindness shown her in the way of visits from operators and presents of flowers and candles, during her protracted illness. Also a word of thanks to the Benefit Society for the prompt remittance of the benefit.

The girls of the Central Engineering Department gave a farewell luncheon on Saturday, September 13th, in the Ivory Room at Mandel's to Misses Sheehan and Kollman, who were recently transferred to the Illinois Engineering Department. As to the success of the affair, the following paragraphs of a poem written by Miss Fischer summarize the opinion of all the girls: Then came the cakes and the peach parfait: "Wish there were more," did I hear you say? Of all the coffee that ever was tasted,

Not one drop of that, I can tell you, was wasted.

The finger bowls thereupon made their appearance, And caused quite a lot of loud interference, For water was lacking; so one little lass Made up the supply from an ice water glass.

Alas! ah, me, 'twas when we arose That each one discovered the gold on her clothes. At sight of the damage one girl nearly wilted— How were we to know that the chairs were new gilded?

Then, after we had our pictures taken, Good-byes were said and hands were shaken; And this was the end of a happy day Which we hope soon again will come our way.

A miscellaneous shower was given at the home of M. Gogreeve in Hinsdale Saturday evening, August 30th, in honor of Elizabeth Schneider, Hinsdale chief operator, who was married September 16 to Frank Gray, Hinsdale wire chief. All present spent a very enjoyable evening, and Miss Schneider was the recipient of several useful and beautiful gifts.

When the Lake Shore train arrived from New York on the evening of September 18, a gathering of young people from the Wabash office met Walter Whitehead, Wabash evening switchboard man. Mr. Whitehead took a vacation and returned with a bride. The gathering was a welcome to the newlyweds. A generous quantity of rice, old shoes and other orthodox wedding tokens greeted them as they stepped from the train. The bride was Celia Molloy, of Brooklyn, and the wedding took place September 16th.

Weddings

The marriage of Elizabeth Schneider, Hinsdale chief operator, and Frank Gray, Hinsdale wire chief, took place at the Hinsdale Episcopal Church Tuesday, September 16th, at 3 p. m. The bride wore a white crepe de chine dress and carried a bride's bouquet of white roses. She was attended by her sister, Agnes Schneider, an operator at the Hinsdale Exchange, and a little niece of the bride acted as ring bearer. The groom was attended by William Robble, repairman of the La Grange Exchange. After a small reception at the home of the bride, Mr. and Mrs. Gray left for Elyria, Neb., where they spent their honeymoon visiting the groom's parents. Congratulations and best wishes of their many friends in the La Grange District go with them. Mr. and Mrs. Gray will be at home to their friends about October 10th, in Hinsdale.

Florence Slyder, recording operator, who has been with toll for six years, resigned to be married to Morv Van Ort, September 24th, at St. James' Church, at four o'clock. Miss Slyder was presented with a beautiful cut glass water set by the operators, and on Thursday evening, September 18th, the operators gave her a miscellaneous shower at the home of May Connolly. At the wedding she was attended by Katharine May.

Miss Ida Kastner, senior supervisor at Harrison, who has been with the Company nine years, was married September 9th to Arthur Shaver of the Harrison repair department. The Harrison force gave a luncheon in her honor in their dining-room, and she received many beautiful presents. Among them was a mahogany chest containing forty-four pieces of silver, and sofa pillows, dollies and other fancy work proved that she had made many friends at the exchange. Wabash presented her with a handsome wedding book.

Bertha Rosenquist, of the Morgan Park Exchange, was married last month to Turner S. Kenney. Mr. and Mrs. Kenney will make their home on Church Street, Morgan Park.

Cupid has been very busy this season at Wentworth, and the latest victim of his arrow was the senior supervisor, Flora Taylor. She resigned on August 31st and was given a supper at Fuller's Hall and presented with a case of silver, a cut glass vase and percolator. Miss Taylor was a great favorite at Wentworth, and is missed very much.

Miss Heggerty, who for six years has been with the operating force of Canal, was married August 27th to Mr. Coleman at the



TELEPHONE FLOAT WHICH TOOK FIRST PRIZE AT BLUE ISLAND

Church of the Holy Family. She was presented with a gift of flat silver by the operators.

Bessie Lukosek, operator at Canal, resigned to be married September 10th.

Miss D. Ebers of toll was married at the home of her parents September 3d to Jacob Jefferies. Mrs. Jefferies is at home after September 15th at 2223 South Leavitt Street.

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Mr. Stickney's Experience

J. W. Stickney, commercial superintendent, has returned from his vacation. Mr. Stickney with his wife and baby were in a wreck on the Pennsylvania just east of Richmond. The car in which they were riding was thrown off the track and out into a corn field on its side, yet they escaped without injury, except a few slight bruises.

Central District

The young ladies of the commercial department were invited to a miscellaneous shower given by Irene Thomas in honor of May Cantwell and Ethel Wells, whose marriages are to take place in October. The house was beautifully decorated with daisies and ferns. Both girls were recipients of a number of beautiful and useful gifts which were presented in baskets tied with yellow tulle.

May Cantwell resigned her position in the collection department September 15th to be married to Frank Widner in October.

Leo Arnold will be transferred to the collection department, taking the position formerly occupied by Ethel Wells, who resigned September 15th to be married to Harvey Hicks of the Chicago Telephone Company.

Inez Hayes gave a linen shower in honor of Ethel Wells of the collection department, whose wedding will occur in October. Appointments were carried out in yellow and white, and the gifts were presented in a large shoe made of yellow crepe paper. A three-course luncheon was served.

The ladies of the commercial department enjoyed an outing at Broad Ripple on the evening of September 10th. After supper was served they took in the "concessions," then a launch ride up the river. The rest of the evening was spent in dancing.

Miss Dugan of the traffic department received as a prize the diamond ring offered by the Sympathy Saturday committee for the one securing the largest contribution from any individual firm.

Ruth Kramer, local supervisor at the Main Office, resigned September 15th to leave for Seattle, Wash., where she will make her permanent home.

Corra Elder, an information operator at the Main Office, was married on September 23d to Chas. Poirier. After an extended trip east they will make their home in Indianapolis.

Helen Griffin, one of the information operators at the Main Office, will be married to William Beasley of Maywood, Ind.

Marie Adams, local operator at the Main Office, has just returned from a visit at Middletown and Dayton, Ohio.

Pauline Wallis, local supervisor at the Main Office, has returned from a two weeks' vacation spent in Detroit.

Dora Montleth, supervisor at the Main Office, has returned from a visit in Albany, New York.

Dorothy Garrity, local operator at the Main Office, spent her vacation at Lake Manitow.

Maude Andre, toll operator, resigned her position and has left for Denver, Colo., where she expects to reside.

Anna Gerber entertained a number of the Prospect operators at the home of Martha Robinson Wednesday evening, September 3d.

Edna Harkins, Prospect supervisor, entertained at her home Wednesday, August 20th, with a mock marriage. Those taking prominent parts were Anna Gerber, as the bride, Edna Harkins, as the groom, Helen Griffin, as bridesmaid, and Nellie Jensen officiating as the clergyman. The decorations and ices were carried out in pink and white.

Inez Johnson, chief operator at the Prospect Office, has returned from a very pleasant vacation.

A number of the Prospect operators spent a very enjoyable evening Tuesday, September 2d, at Fairview Park.

Octavia Stephens has been visiting with relatives and friends at her old home in Tennessee.

Flora Reiss, North Office Supervisor, resigned September 13th to be married.

Marjorie Freeman, one of the most alert operators in the North Office, has been promoted to the position of supervisor.

Mabel Raymond, new-number clerk at the North Office, resigned September 13th. Miss Raymond has had to give up her position on account of poor health, much to the regret of her many friends.

Dorothy Davis, North Office operator, has been transferred to the Main Office, and has been promoted to the position of clerk.

Jennie M. Newnam will spend her vacation with relatives at Nashville and Chattanooga, Tenn.

A private branch exchange of one trunk and six stations has been installed for the Browning-Buck Sales Company, Indianapolis.

Northern District

A. S. Barnett has been checked in as manager at Peru, succeeding C. R. Bebee. Mr. Barnett has been connected with the Traffic Department for several years.

The work at Elwood preparatory to abandoning the old Bell Exchange is progressing nicely. The entire building formerly occupied by the D. & M. quarters has been leased and new equipment installed. The new commercial office will occupy the front of the downstairs and the chief inspector's office will occupy the rear. A separate building is being built in the rear of our building, to be used for store room purposes.

The work at Muncie under the estimate for retiring duplicate plant is under way. At the same time, considerable overhauling is being done of the toll lines out of Muncie.

B. G. Halstead, district plant chief, is gradually finishing the work of overhauling and repairing toll lines in his district which were damaged by the storm and flood in the spring. The work will soon be finished and the lines in a good condition for the winter.

The work has been started at Peru replacing deteriorated plant purchased from the Peru Home Telephone Company. This work is being rushed in order to finish before the cold weather sets in.

The work of dismantling the dead plant at Richmond has been commenced. All plant which is not actually in use except that which is used by other wire using companies and the city of Richmond will be dismantled.

The work of the new toll board at Fort Wayne is nearly completed. The old four-position toll board will be abandoned and five local positions equipped for toll. This will give an additional toll position and make the facilities for handling toll business much better.

Leah McCullough, formerly ticket clerk at Elwood, succeeds her sister, Beryl McCullough, as chief operator.

Bena Singer, clerk at Alexandria, was transferred to Peru as cashier. Miss Singer is succeeded by Ethel McKinley, formerly local operator.

Mabel Kelly, chief operator at Frankton, has returned after a two weeks' vacation.

Lizzie Shannon, the night operator at Rome City, is off duty on account of illness.

Josephine Becker, operator at Kendallville, has resigned and has been succeeded by Lena Auer.

J. W. Bruder of Indianapolis has been helping out at the Kendallville Exchange on repairs to the toll lines and farmer lines.

This has been a very good season at the Rome City summer resort; many new telephones were installed among the cottagers, who were well pleased with the service.

Chief Inspector Frank Baad at the Kendallville Exchange is also an expert fisherman. Recently, on a trip, he succeeded in landing several very good bass that he claimed would weigh at least twenty-five pounds (collectively, we presume). He claims he has several witnesses to prove this.

Marie Heppner, local operator at Shelbyville, spent her vacation at LaFayette, Ind., and kept the other operators supplied with postcards of the places of interest.

Julian G. Molline has resigned as switching agent at Huntstown, and is succeeded by J. C. Haverstock.

What the newspapers speak of as a "merger between the Western Union and Postal" was consummated September 7th at North Manchester, Ind., when Naomi Rupley, former Western Union manager at Auburn and first operator in the new Joint Western

Union and Central Union 10-A office, was married to Virgil Johnson, manager of the Postal Telegraph Company at New Castle.

A new copper circuit has been placed in service between Auburn and Waterloo Test Station, replacing a circuit between these points leased to the A. T. & T. Company.

Agnes Lyons, toll operator at Fort Wayne, has resigned and returned to her home at Alton, Ill.

Bessie Wilkins, recently employed as toll operator at Vincennes, Ind., has taken a similar position at Fort Wayne.

Genevieve Pyle, toll operator at Fort Wayne, has resigned to accept a position as private exchange operator in the office of the Lincoln National Life Insurance Company.

Charles F. Miller has entered the service of the company at Fort Wayne as assistant toll wire chief.

On Sunday, August 3d, Dr. and Mrs. Joliff entertained the young ladies of the Muncie Exchange at their beautiful country home, "Fair Acres." The girls left on the 2 p. m. interurban car and were so eagerly anticipating their visit that they got off at the wrong place, and had to be told that they would be duly notified when the place was reached. Everything that could be thought



THE DAIRYMAIDS

of in the way of "eats" was forthcoming, and the place simply turned over to the girls. A number of pictures were taken, and these will be a pleasant reminder of a "red letter day." One of these pictures shows that telephone operators can also be "dairy maids," adding another accomplishment to their list.

Lela Green, chief operator's clerk at Muncie, has changed her name to Mrs. Robert Babb. She still holds her position.

Inez Diltz has been promoted to night chief operator at Muncie.

Nellie Anderson has been appointed supervisor at Muncie.

Chief Operator Anna Porter, of Muncie, has returned from her vacation.

In honor of Night Chief Operator Mrs. Julia Hope, who will leave in a few days for her future home in Dayton, Ohio, the Muncie operators entertained at a banquet and farewell party, Friday evening, September 5th, in the rest rooms of the exchange. Evelyn House acted as toastmistress, and responses were given by several young ladies. Manager Springer was the only male guest, and he did his duty as far as eating was concerned. Following the banquet, a farewell party at the home of Mrs. Robert Babb, on North Jefferson street, was enjoyed. Mrs. Hope received a number of beautiful cut glass pieces.

John D. Norwald, lineman at Shelbyville, has resigned to accept a position with the Decatur County Telephone Company. He was succeeded by E. W. Reed.

Martha Watkins, toll operator at Shelbyville, has resigned her position to resume her high school studies, but will act as relief operator during the winter months.

Agnes Rehm has resumed her position as night toll operator at Shelbyville, after a two weeks' outing in the country.

Elizabeth Griffith, who was cashier at Shelbyville for several years, died at her home September 4th. Miss Griffith resigned her position more than a year ago on account of ill health.

Mary Fields, Lucile Jackson and Helen Lammert have accepted positions as local operators at Shelbyville, to succeed Mary Headlee, Ruth Tucker and Grace Taylor.

Ona Ingall, night operator at Greensburg, is spending her vacation in Chicago, Ill., with relatives.

Lyda Biddinger has accepted a position as relief operator at Greensburg.

Gertrude Kendall, toll operator at Greensburg, spent her vacation in Joliet.

The commercial work at Elkhart, Goshen and Ligonier was turned over to the South Bend Exchange Area as of September 1st.

A. Roy, of the South Bend commercial department, enjoyed a vacation at West Baden, Ind.

W. W. Hiller and F. J. Dolan of the Vice-President's office, Chicago, visited South Bend recently. They seemed much impressed with the manager's pet—the bill stub cabinet.

Joe Hartzler, toll wire chief at South Bend, left on his vacation last month and wrote back from St. Joseph, Mich., that he had taken with him something his friends knew nothing about—a bride—formerly Miss De Mas, a toll operator in South Bend.

Commercial department employees at South Bend enjoyed a melon festival at Richard Carlton's home, four miles west of the city.

Vendia Carper, operator at Auburn, was off duty for a few days on account of a badly burned hand.

E. J. Rasico, telegraph operator at Auburn, has been transferred to Indianapolis, and is succeeded by F. D. Walker.

Julia Richards, local operator at Auburn, has returned to duty after a six weeks' absence on account of sickness.

Southern District

W. E. Alexander has been transferred from Lafayette to Frankfort, where he takes the position of chief inspector.

Manager D. Finical was one of the State Fair visitors at Indianapolis, notwithstanding the fact that he failed to receive the "rules" until he returned to Vincennes. The boys at Indianapolis were afraid Diod could not find his way around, and they gave him a set of detailed "instructions" for attending the fair.

There have been a number of changes in the public highways near Spencer, and these changes have forced Manager McDonald to move several of his leads, at considerable expense.

A joint 10-A Western Union office was opened up at Greenwood on September first, with Manager Fee in charge. Mr. Fee made some slight changes in the arrangement of his front office, providing a nice counter for the purpose of handling telegraph business, the counter also serving as a cashier and contract counter. This new office will give Greenwood much better telegraph facilities, as patrons will now have all night service. When the Greenwood office is closed at night, patrons are connected direct with Indianapolis as a night relay office without additional charge.

Terre Haute has been handled on a functional basis for the past two years, but has been changed back to a non-functional exchange on September 1st. All departments are under the direct supervision of the manager, who reports to the district plant, traffic and commercial heads.

Le Grange Marvin, former manager at Frankfort, has accepted a position with the Indiana Public Service Commission.

New standard lighting fixtures have been installed at Frankfort, which is a much needed improvement. The old style swinging transmitters have been replaced by standard chest transmitters.

Work is progressing very nicely at Terre Haute equipping two additional through switching positions.

A Crawfordsville lady requested a mahogany desk stand with transmitter and receiver of the same material to match her furniture. The stock was low and the request could not be granted.

Marguerite Strain, night chief operator at Crawfordsville, was married September 3d to Frank Gambrel, of Indianapolis.

Ella and Lela White, toll clerks at Crawfordsville, spent their vacations in Champaign, Ill., and Indianapolis, Ind.

Work combining the two plants at Crawfordsville will probably be finished within ninety days.

A new copper circuit with a phantom has been placed in service between Lebanon and Frankfort, Ind. It is expected later on to use this circuit as a part of an Indianapolis-Lafayette through circuit.

The construction department expects to have new phantoms in operation between Terre Haute, Clinton and Hillsdale, Indiana, in the early part of October. This will provide relief for the traffic between Terre Haute, Rockville and points reached through Clinton.

Floyd Chowning, lineman at French Lick, has resigned to go to Terre Haute, where he has accepted a position with the Vandalla Railroad. He is succeeded by W. F. Brown, of the Bedford exchange.

Nell Cameron, operator at Bedford, has returned, after enjoying a ten days' vacation.

Ella Campbell, cashier at Bedford, has returned after spending her vacation on a trip to the lakes in the northern part of the state.

Rosa Clancy, operator at French Lick, ex-

pects to leave shortly for her future home in California.

Henry D. Cornelius has resigned his position as lineman at Bedford and with his family has moved to Morgantown, where he will have charge of the telephone exchange.

Work is to be commenced soon placing underground all toll lines entering the West Baden Hotel. Extensive repairs by the hotel company and the beautifying of the grounds make this work necessary.

Emory Love, collector at Bedford, spent his vacation of ten days in Chicago.

Material for extending and rebuilding the outside plant of the Main Exchange is being received at Bloomington.

Mamie White, local operator at Spencer, spent her vacation in Jasonville and Terre Haute.

Mrs. Keefauver, pay station operator at the Terminal Station, Indianapolis, spent her vacation in Spencer with Manager R. M. McDonald and family.

Bernice Rinker, former clerk at Brooklyn, who resigned July 15th, was married August 11th to R. R. Tresslar of Mooresville, Ind.

Wisconsin Division

F. M. McEniry, Correspondent,
Milwaukee

Wisconsin Telephone Baseball League FINAL STANDING OF THE TEAMS.

	W.	L.	P. C.
Trouble Department.....	10	2	.833
Installers Department.....	8	4	.666
Commercial Department.....	4	8	.333
Engineers Department.....	2	10	.166

Appleton District

John Loos, toll wire chief at Appleton, has resigned to engage in other business. Ralph Printup, formerly collector, has been transferred to the position of toll wire chief.

Myrtle Struck, clerk at Appleton, enjoyed a week's vacation.

Clara Pfeil, chief clerk at Appleton, has been away for a two weeks' vacation spent at Algoma and Sturgeon Bay.

Gertrude Heffernon, assistant chief operator at Berlin, enjoyed a two weeks' vacation at Wautoma.

Adah Heffernon, local operator at the Berlin exchange, has returned from a two weeks' vacation spent at Tomahawk.

Inez Jordan, toll operator at Berlin, spent a two weeks' vacation at Green Bay and Fond du Lac.

A. Winkleman and crew of four installers are preparing the subscribers' telephones at Berlin for the cut-over on the new switchboard, to be made in the near future.

Harold Brooks, wire chief at Green Bay, has been away on a vacation.

Mable Raymaker, supervisor at Green Bay, has returned to her duties after being away for a number of weeks on account of an operation.

A new contract for a No. 2 private branch exchange was secured from the International Harvester Company, for eight stations and two trunks.

Zeda Baars spent a few days visiting at Milwaukee and Watertown during her vacation. Miss Baars is an operator at Hortonville.

Ada Lindberg, operator at Kaukauna, has returned to work after being absent for six weeks on account of sickness.

Mamie Schultz has been employed as regular operator at Kaukauna succeeding Ella Pratt.

Nellie Jones, chief operator at Kaukauna, spent a two weeks' vacation visiting relatives at Green Bay during August.

Selma Weber, operator at Kaukauna, spent a two weeks' vacation in August visiting friends and relatives at Sheboygan.

Elvira Lindstrom has been employed as regular operator at Kaukauna, succeeding Elizabeth Kielan, who is to be married soon. The operators at the Kaukauna exchange gave a miscellaneous shower for Miss Kielan recently.

Elizabeth Sharkey, chief operator at Marinette, has resumed her duties after spending two weeks visiting in Green Bay.

Bessie Hallan, chief clerk at the Marinette exchange, spent two weeks' vacation in the Iron country.

H. F. Bornheimer, manager at the Marinette exchange, has secured a contract for a cordless private branch exchange with four stations and one trunk for the Skidmore Land Company.

Minnie Nelson, a local and toll operator at Marinette, was transferred to Green Bay during the Perry Centennial celebration to assist as toll operator.

On August 15th a Mothers' meeting was held at the Neenah-Menasha exchange for the mothers of the operators. The switch-

board was explained to the visitors by the chief operator after which they were taken into the rest room where Miss Rosche, social secretary, of Milwaukee, presented each with a rose and served ice cream and wafers. The mothers were all very much pleased with the meeting and reported an enjoyable time.

Grace Casperson, local operator at the Neenah-Menasha exchange, has returned after spending a two weeks' vacation at Stevens Point.

Hazel Jagerson, local operator at Neenah, spent her vacation in Milwaukee.

Nellie Larson, chief operator at Neenah, has resumed her duties after a three weeks' vacation spent at Madison.

Mable Marshall has resigned her position of chief operator at Omro to go to Sacramento, Cal. Neva Huyers succeeds Miss Marshall as chief operator.

Pearl Compton has been employed as operator at Omro to succeed Effie Oakes who was promoted to toll operator.

The Winnebago County Telephone Company, connecting with the Oshkosh exchange, has increased the number of subscribers over twenty per cent. this summer and now has over 200 subscribers.

Nellie Rice, chief operator at Oshkosh, is spending her vacation in the west.

Mildred Raymond, operator at Oshkosh, has resigned to accept a position in Chicago.

Helen Barnett, toll operator at Oshkosh, has resigned her position to accept one with the telephone company at Gary, Ind.

The Red River Telephone Company connected up nineteen new subscribers during the past month making seventy-one subscribers of this company connected at the Shawano exchange.



IN HIS WORKING CLOTHES.

This is R. C. Chambers, owner and manager of the Waunakee Telephone Company.

In 1900 the Dane County Telephone Company, then operating at Madison, started a small telephone exchange at Waunakee with about twenty-five subscribers. There was an old grounded toll line connecting the exchange with the Madison switchboard.

Several years later the property was taken over by Mr. Johnson, who continued to operate it and added a few subscribers each year.

In 1907 R. C. Chambers purchased the entire plant and immediately started improvements. The lines were all overhauled and placed in good condition and connections were made with the Wisconsin Telephone Company to furnish toll service to all of his subscribers.

In 1911 the office was moved to its present location and a new Western Electric magneto type switchboard was installed.

The exchange is now one of the best of its class in the state and Mr. Chambers is to be congratulated on the exceptionally good job he has done in keeping his property in first-class condition.

The exchange has grown rapidly under his management and now numbers 230 subscribers.

Mary Kessler, chief operator at Shawano, has been away on a two weeks' vacation.

The Bonduel Telephone Company connected with the Shawano exchange, connected up twenty-five new subscribers during July. This company now has 318 subscribers.

Vie Hodges, toll operator at Sturgeon Bay, spent a two weeks' vacation at Green Bay during the Perry Centennial celebration.

H. E. Mevenden, manager at the Oconto exchange, visited relatives at Sturgeon Bay while on his vacation.

During the past two months many of the Waupaca operators have been enjoying their summer vacations at the "Chain o' Lakes," one of the most beautiful and picturesque recreation spots in Wisconsin. Each one on her return has proclaimed it to be one of the most enjoyable vacations ever spent.

Antonetta Van Beckum, operator at Wrightstown, spent a week's vacation visiting relatives at Green Bay.

Eau Claire District

J. E. Bonnell, manager at Eau Claire, has secured a forty-four station hotel-system contract with the Galloway Hotel.

Miss D. L. Hinz, chief clerk at Eau Claire, has returned after a two weeks' vacation spent visiting in the northern part of Wisconsin.

A. C. Borgen, assistant wire chief at Eau Claire, spent a two weeks' vacation making a canoe trip on the Chippewa River, starting at Eau Claire and ending at the Mississippi River.

Edna Kleiner, clerk at Eau Claire, has returned from a two weeks' vacation spent at the lakes at Reserve, Wis.

Margaret Farrell, chief operator at Eau Claire, resigned her position and was married during the month of August. She is succeeded by Amanda Hansen, formerly chief operator at Stevens Point.

Blanche and Edna Fritz, of Ladysmith, spent a two weeks' vacation on a visit with friends in North Dakota. Mrs. Arthur Wilmot, formerly toll operator, acted as clerk during Blanche Fritz's absence. Frances Kilgore acted as toll operator during Edna Fritz's absence.

R. A. Nelson has resigned as manager at Ladysmith to accept a position at Crandon, Wis.

H. W. Allen was appointed manager at Ladysmith succeeding R. A. Nelson.

Jennie Beggs, at Cameron, has accepted the position as operator, succeeding Winnie Way, who resigned to go to school.

Hazel Wilson is relief operator succeeding Ruth Cole, who resigned to go to school.

Recently the Bank of Ingram was robbed and the thieves sawed the fifty-pair cable leading into the telephone office and cut down the long-distance wires, tying up the long-distance as well as local service. A messenger was sent to the next town to telephone Ladysmith, and in an hour from the time the message was received Mr. Allen, the manager, had the long-distance wires working, and by three o'clock the lines were all in working order. The trip was made by auto, a distance of eighteen miles, in forty-one minutes.

Fern Ferguson, local operator at Ingram, has returned from a three weeks' vacation.

Mabel Kaas, toll operator at Stanley, en-



EXCHANGE EMPLOYES AT LANSING, MICH.

Standing from left to right are: B. R. Marsh, manager at Lansing; F. B. Clark, installer; Art Esler, L. E. Sparling, C. C. Norcutt, Earl Edington, Western Electric Company; G. C. Shoner, H. G. Gilson, L. J. Currie, district foreman. Bottom row: Glen Barle, equipment installer; F. E. Davis, L. A. Godney, G. R. Jacoby, and Carl Fox, stockman. Some of these men belong to H. A. Harrington's equipment department.



BASEBALL AND BASKETBALL TEAM OF DETROIT OPERATORS AT SUGAR ISLAND, CAPTAINED BY E. C. LASKEY

joyed several days' vacation with friends and relatives in Minneapolis.

Edna Hazen, formerly local operator at Stanley, resigned August 1st to be married to Robert F. Potter of Owen, Wis., on August 12th.

On September 4th, at 5 p. m., Emma Inenfeldt of Menomonie and James A. Higgins of Minneapolis were married at the bride's home. The bride wore a gown of white silk and carried a bouquet of yellow roses. After a luncheon was served, Mr. and Mrs. Higgins left on the evening train for Minneapolis, where they will be at home after October 1st. The best wishes of their many friends go with them.

Glenn Howe, manager at Menomonie, has returned after spending his two weeks' vacation at Orfordville, Wis.

After visiting friends at Colfax, Wis., for two weeks, Florence Bird has resumed her duties as night operator at Menomonie.

Glenn Howe, manager, and Emma Peterson, chief clerk at Menomonie, attended the managers' convention, which was held at Eau Claire September 11th.

Grace Meyers has resigned her position as operator at the Menomonie Exchange and has accepted a position as private exchange operator at the Waterman-Ehrhardt Company.

Foreman H. Hanson and crew are at Menomonie completing a new circuit from Eau Claire to Menomonie and repairing the other Eau Claire lines.

Agnes Johnson, toll operator at Ashland, visited friends and relatives at Grand View. Agnes Carlson, local operator, and Jennie Harrington, assistant chief operator, spent their vacations at Ironwood and Hurley. Mary Meziva, Ellen Bodine and Esther Erickson all spent their vacations at home.

Arthur Curry, collector at Ashland, enjoyed a two weeks' vacation taking in the towns on the Mesaba Iron Range. William P. Hyland, commercial agent, spent his time at home.

Miss Vera Fitzgerald, toll clerk, visited relatives in the copper country, returning by way of Duluth, where she spent a few days.

Paul Halbe visited at Minneapolis, St. Paul, Chicago and Milwaukee. J. B. Nichols, lineman, together with his wife and a number of friends, spent his vacation out camping. Incidentally there was a trout stream near and Mr. Nichols had some wonderful "fish stories" to relate on his return.

C. Kellogg of Tomah, Wis., relieved William LaBarr, A. T. & T. wire chief, at Ashland during his vacation period.

Janesville District

Rose Meili, bookkeeper at Beloit, was married to John A. Hevey at the Hotel La Salle, Chicago, on August 19th. Jessie McKenna, manager's chief clerk, was bride's maid. A wedding dinner was tendered the couple at the roof garden of the La Salle Hotel by the Rand McNally Company, of which firm Mr. Hevey is an employee. Mr. and Mrs. Hevey went on a wedding trip on the lakes and returned to Beloit in two weeks.

Erwin Scharff, installer at Beloit, and Minnie Wolsdorff, toll operator at Beloit, were married at Milwaukee on August 28th. Mr. and Mrs. Scharff will make their home at Beloit.

Milwaukee District

A card with the following note was received at the main office accompanied by three vases of beautiful flowers:

"To the Telephone Operators and Employees of the Wisconsin Telephone Company:

"In reorganizing the Wisconsin College of Music, it became necessary for me to use our telephone for hours at a time. Thank-

ing you for the efficient service you have given me during the past five weeks, I am,

"Very sincerely,

(Signed) "ANNA K. BRUENING."

The bouquet was placed in the rest and lunch rooms of the operators where all enjoyed the flowers and were made to feel that their efforts to give good service were appreciated.

Michigan Division

David H. Dodge, Correspondent,
Detroit

Mr. Laskey's Anniversary

August 25, 1913, marked the twentieth anniversary of service spent in the employ of the Michigan State Telephone Company by E. C. Laskey who is at present traffic chief of the Main and Cherry offices, Detroit.

After completing a public school course, Mr. Laskey attended the Gutchess Business College and then entered the Detroit Telephone & Telegraph Construction Company as



E. C. LASKEY

a messenger. In two years he was appointed to the position of telephone clerk, serving in that capacity till 1899, when he went to the plant department of the Michigan Telephone Company. In February, 1900, Mr. Laskey entered the traffic department as all-night chief operator, remaining there four months, and then became relief chief operator. Then came the consolidation of the Michigan and Detroit telephone companies, and in July, 1900, he was transferred to the Detroit offices as traffic manager. In December, 1901, he was transferred to the West Exchange as manager, where he remained until April, 1904, when he was again promoted, this time as exchange manager at the Grand Exchange. He remained there until 1907, when he was appointed traffic supervisor of all branch offices in Detroit. In October, 1910, he was appointed traffic chief of Grand and Walnut offices, where he remained till June, 1911, when he became traffic chief of Main and Cherry offices. This position he is holding at the present time.

Mr. Laskey occupies a very warm spot in the hearts of all the traffic employees, as his principles of honor and fairness are up to the highest standard. He is generous to a fault, and always has a kind, cheery word for everyone, knowing just what to say, and the right time to say it. News readers will join us in hoping that his success will always be as great in the future as it has been in the past.

P. B. X. Development in Detroit

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of August, 1913, were the following:

	Trunks.	Terminals.
Hugh J. Wood, apartment house (new)	2	39
Detroit Sanitarium, hospital (new)	2	6
Edson, Moore & Co., dry goods (addit.)	1	7
Mallometer Co., mail machinery (new)	2	6

Ditzler Color Co., paints and oils (new)	2	8
Detroit Auto Specialty Co., auto fenders (new)	2	6
Carola Apartments (new)	2	27
Barrett Manufacturing Co., tar products (inter-com. set, new)	2	5
Grant Brothers Foundry Co. (new)	2	6
Eugene A. Klein, insurance (new)	2	6
Adolph M. Schwartz, attorney (new)	2	6
Of the total of ten new private branch exchange contracts ordered during August eight were secured by Floyd H. Lockwood and two by Dare S. Burke, the former working for three weeks during the month and the latter for two weeks.		

West Michigan State Fair

The greatest of all West Michigan State Fairs opened to a record crowd on Labor Day, September 1st, at Comstock Park, Grand Rapids.

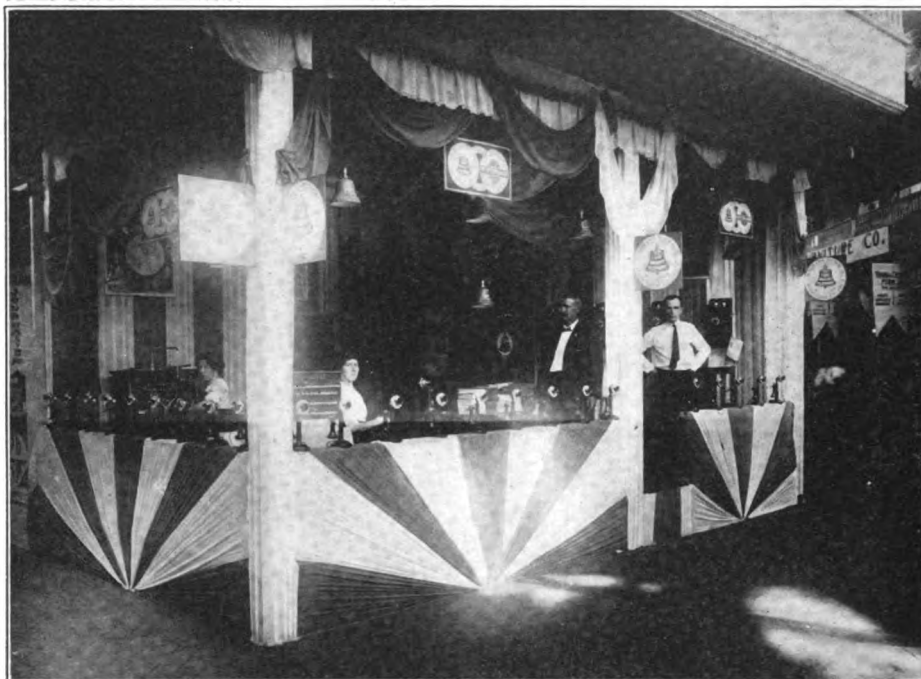
Sixteen thousand people were passed through the turn-stiles on the first day, and these figures were exceeded each day until Friday, when all attendance records were shattered by an immense throng of 40,000 people. Never had conditions been better, weather more fair or displays more extensive and elaborate.

Among these the Michigan State Telephone Company outdid the splendid efforts of former years. When our booth had once been located we were fairly overwhelmed with the business offered us.

A large and efficient corps of the plant department's best men, under the able command of Plant Chief Lindsay, wired the grounds from end to end, installing booths in every important office and exhibit buildings on the grounds.

The commercial department, headed by C. E. Waite, commercial manager, handled the public in magnificent style. Souvenirs of various kinds were distributed to the crowds, who were eager to use our service and learn our methods. The cordless switchboard which we displayed was easily one of the drawing cards of the fair.

Among the booklets passed out was one entitled "Welfare Work In Behalf of Telephone Operators." It is worthy of special



BELL BOOTH AT WEST MICHIGAN STATE FAIR, GRAND RAPIDS

note that these little books led some twenty young ladies to make application at our office for positions during the first two weeks following the fair. About 20,000 circulars of various kinds were given out.

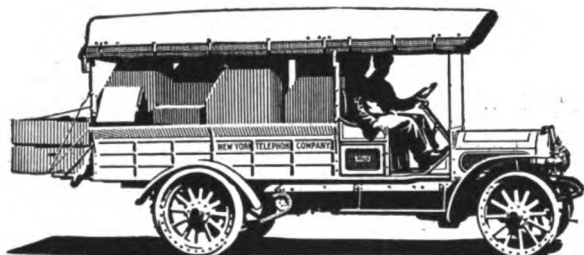
The needs of the patrons were exceptionally well handled by two of our most efficient traffic employees, Josephine Fogarty and Margaret Minogue. These two young ladies, working under trying conditions with a noisy throng about them, and an impa-

tient public at their heels, put up several thousand calls during the fair.

It was a tired but happy telephone crowd that bade farewell on Friday evening to the most successful of all State Fairs.

Detroit Traffic Meeting

A meeting of the Detroit traffic chiefs, chief operators and supervisors, was held in the Telephone Society room in the Main ex-



The Bell Telephone Company's Philadelphia plant uses one of our 1½-ton trucks to supply stations within 25 miles.

The saving over express delivery is 74.3%.

The saving over freight delivery is 59.7%.

International Motor Trucks

Proved by Years of Successful Service

Mack 12 years in use **Saurer** 18 years in use **Hewitt** 10 years in use

The continued efficiency of our trucks in all kinds of service is proved by records repeated year after year during 10, 12 and 18 years of service.

We supply a proved truck for every service.

Nine sizes—capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½ and 10 tons.

Bodies for every transportation service.

Have you any delivery problems? We place 18 years' accumulated experience at your service without obligations.

International Motor Company

General Offices: Broadway and 57th Street

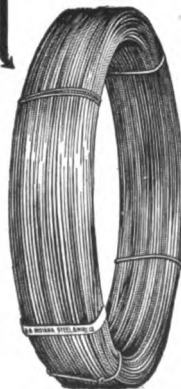
Works: Allentown, Pa.; Plainfield, N. J.

Branches and Service Stations in Chicago, Cleveland, Cincinnati, Kansas City—All Large Cities.

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.

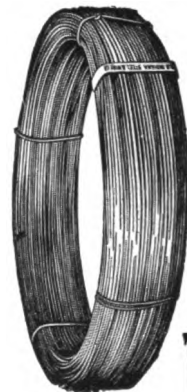
**Write for FREE SAMPLE
Make Test and Comparison**



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.

Muncie, Indiana





TELEPHONE OPERATORS and Stenographers

Save Your Clothes

By wearing our new Ideal

Circular Skirt Apron

REASONS WHY

*Entire length covering skirt.
It fits perfectly in back, fasten-
ing down side as in illustration.*

Some day you will wear one,
why not now?

Made of good quality black

sateen. Any waist measure to order.

Stock sizes 22 to 30 in. for immediate delivery by Parcel Post,
75c prepaid, anywhere in U. S. or Canada.

Extra Offer—12 Carmen Hair Nets, 1 Circular Skirt Apron, for \$1.00.

MAIL YOUR ORDER TODAY

WANTED

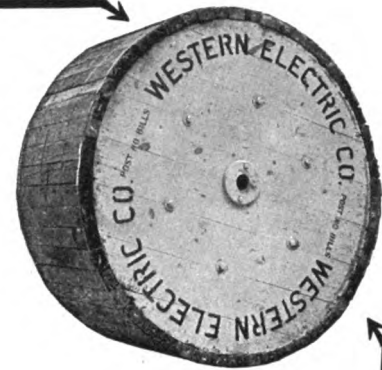
Women Demonstrators in every office in Michigan, Wisconsin,
Indiana and Illinois, to take orders. Good money made during
spare hours. Write for sample enclosing price of apron.

CHAS. SCHIFF

423-25 W. 63rd St.

Chicago, Ill.

Putting
the
overhead
lines
in



Western Electric Lead Covered Cable

will prove the equivalent of a guar-
antee of continuous service.

Do the telephone men in your territory
know that putting lines in cable cuts down
maintenance expense and improves the out-
side wire plant?

It is to your advantage to tell them—and theirs
to know it—why not tell them and improve service
in your district.

Western Electric Company

change September 5th, conducted by Traffic
Superintendent W. A. Spencer.

The chief object was to outline in detail
the new routine of pay rolls throughout the
Detroit offices and to give the employees a
general idea of how each was to be bene-
fited by the change. Mr. Spencer went into
the subject very thoroughly, and was very
clear in his explanation.

The service in the different offices was
also touched on by Mr. Spencer. He espe-
cially asked the supervisors to try and do
their very best at all times and to be cour-
teous to all subscribers, explaining how
easily the public might get a bad impres-
sion of the Company as a whole by some
one answering them in a cross or discour-
teous voice. He also spoke of the Grand B
operator's work impressing upon every one
how important it was to avoid crowding in
calling circuits, the necessity for team work
by all, and the mistakes which may arise
by either operator talking at her board. As
the calling rate was very high in Detroit,
it was therefore important that every oper-
ator should be always on the alert. Mr.
Spencer closed his remarks by announcing a
program prepared by E. C. Laskey, traffic
chief, which would be followed by refresh-
ments. An outburst of approval followed
Mr. Spencer and greeted Mr. Laskey as he
announced the program as follows:

Piano solo, by Edith Polhamus, Main ex-
change; recitation, by May McPherson,
Hickory; vocal solo, by Leora Stevens, Wal-
nut; recitation, by Myrtle Norwood, Grand;
piano solo, by Mildred Horton, East; vocal
solo, by Margaret Faber, accompanied by
Miss Polhamus; recitation, by Gertrude Mc-
Pherson, Main; and vocal solo, by Gladys
Broquet, Ridge.

Detroit District

Edith Martin, for seven years in the De-
troit auditing department, where she was
last a lease record clerk, resigned to get
married. She is now Mrs. Michael D. Casey,
of Baltimore, Md.

Eastern District

Mabel Sutton, formerly clerk at the Mt.
Clemens exchange, has resigned her posi-
tion to take up the millinery business.

Agnes Hupert has accepted a position as
clerk No. 3 at Mt. Clemens, in place of Mabel
Sutton.

W. A. James, manager of the Mt. Clem-
ens area, left Monday, September 8th, for a
two weeks' vacation. He visited his home
town in northern Michigan. He also went
to Saginaw, Port Huron and other points.

Mae Wales, Mt. Clemens local operator,
resigned her position to be married to Karl
Klaar of Boise City, Idaho. She left for
her new home September 15th, with the best
wishes of her fellow workers. Her engage-
ment was originally announced at a delightful
"At Home" party given by Mrs. C. Wales,
mother of the bride. Later on, an enjoy-



DETROIT OPERATORS' EXCURSION TO
TASHMOO PARK

able shower was given by Chief Operator
Mabel Duckwitz, in honor of Miss Wales, at
which the latter received a beautiful set of
silver from the telephone office force.

Clara Barck resigned her position as su-
pervisor at Mt. Clemens to be married to
Louis Blank of Detroit. The event took place
in September. Several pleasing functions
have been held in honor of the bride-elect.

Margaret Haller, Mt. Clemens evening
chief operator, enjoyed her vacation at Buf-
falo, Niagara Falls and Toronto.

Eva Furton and Vera Quackenbusch are
new operators in the Mt. Clemens exchange,
filling the vacancies left by Mae Wales and
Clara Barck.

Mabel Duckwitz, Mt. Clemens chief oper-

ator, was detained at her home for one week
on account of sickness.

Cora Sawitzky, Mt. Clemens night oper-
ator, was absent from her duties for a week
with an attack of appendicitis.

Hazel Minnis has been made chief oper-
ator at the Lansing office in place of May
Hannaway, who resigned on account of seri-
ous illness. Miss Hannaway was taken sick,
July 29th, with general peritonitis, and al-
though her condition slightly improved she
was not quite out of danger when this was
being written.

Ethel Freer, operator at the Jackson ex-
change, resigned to be married September
10th to Arthur Young.

Helen Harris, desk supervisor at Jackson,
spent a very enjoyable and restful vacation
at home.

Estella Freer, traffic clerk at Jackson, has
returned from a week's vacation.

Mrs. Lula Eller has been transferred to
toll at Jackson.

Gertrude Birney, Jackson day toll oper-
ator, resigned August 25th to accept a posi-
tion with the American Gear, as private ex-
change operator.

Lena English, Jackson operator, has been
transferred to toll.

Ada Haywood has resigned to resume her
studies at the Jackson High School.

Carrie Pfitzer has returned to Jackson
from a week's vacation in Chicago.

Edith Roberts has resumed her duties as
local operator at Jackson after a week's ill-
ness with measles.

Lillian Swidensky, Jackson toll operator,
spent a very enjoyable week with friends
camping at Michigan Center.

Emma Zenz, local operator at Jackson, re-
signed her position in June and was married
to John Taylor, August 6th. She re-entered
the service August 18th.

Mae Shorr, chief operator of the Jackson
exchange, accompanied by Merle Boswell,
toll supervisor, visited the Lansing chief op-
erator. Miss Hannaway, who is detained
at her home on account of serious illness.

Sadie Tighe, formerly of the Cleveland toll
room, has accepted a toll position in the
Jackson office.

Mae Shorr and Merle Boswell had recently
as their guest Addie Hayes, chief operator at
La Fayette, Ind. They enjoyed a most de-
lightful Hoosier party with some more
Hoosier friends.

Mable Hinton entertained at a novelty

shower in honor of Ethel Freer, a bride of September. Miss Freer received a number of very pretty presents.

Susie Parker, cashier at Jackson, spent an enjoyable vacation with friends at Clark's Lake.

Grand Rapids District

W. J. Chase has been appointed manager at Solon toll station to succeed F. E. Gauthier.

Lattie Brackenbury has been appointed manager of the South Boardman Exchange.

Arthur Marvin has been appointed manager at Elk Rapids, succeeding Mason Richmond. Mr. Richmond has been appointed manager at Kalkaska, succeeding Guy Barber.

Effective September 3d, G. E. Martin succeeds D. E. Rogers, resigned, as manager of the toll station at Lowell.

Marquette District

The toll station at Doty, Alger County, has been closed, as lumbering operations in the vicinity have closed.

Schweitzer's Camp toll station, Marquette County, has been discontinued, lumbering operations having ceased.

A. E. Bauman has succeeded R. O. Tobin as manager of the Shingleton toll station.

Saginaw District

W. J. Berry, agent for connecting companies, and Mrs. Berry, spent their vacation, during the end of August and the beginning of September, at Long Lake, Cheboygan county. Mr. Berry brought fishing tackle to be used with special bait and expected to put Mr. Kingsbury's record 'way in the shade. Mr. Berry returned to the office as brown as his name.

Illinois Division

A. J. Parsons, Correspondent,
Springfield

Champaign District

District Commercial Manager O. F. Clark spent a two weeks' vacation in Indiana, Ohio and Pennsylvania.

Kate Mirgon, information operator, and Alice Mirgon, toll supervisor, spent their vacations with relatives in Ohio and West Virginia.

W. F. Conners has taken the position as installer, succeeding William Loftus, resigned.

Helen Chodera, pay station operator, spent her vacation in the country.

Decatur District

G. J. Crinigan has taken the position of collector at Decatur, succeeding Virgil B. Cade, resigned to accept a position with the Wabash Railroad.

Byron McMillin succeeds W. F. Hupp as commercial agent at Decatur. Mr. Hupp goes to Denver, Colo.

Mrs. Edna Baugh resigned her position as ticket clerk at Decatur and moved to Houston, Tex. Marie McKee succeeds Mrs. Baugh as ticket clerk.

Margaret Kelly spent her vacation at Lovington, Ill.

Clarence Weaver, night switchboardman at Decatur, has returned from a week's vacation spent at Chicago and Milwaukee.

Harry Cloud has taken a position as collector at Decatur succeeding Byron McMillin, promoted to commercial agent.

Mayme Wetz, local supervisor at Decatur, spent her vacation in Denver, Colo.

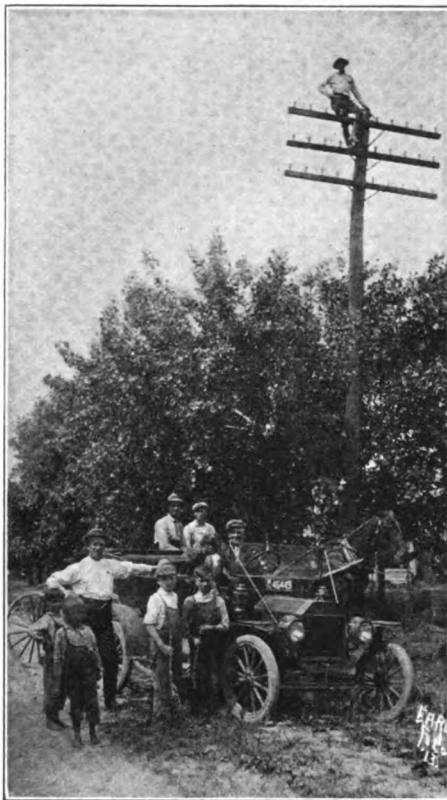
Galesburg District

Mabel Miller, supervisor, has returned to her work after a pleasant two weeks' vacation spent in Rankin, Ill.

Maud Haggengos, traffic chief, visited Chicago friends for a week.

Florence Page, Anna Kornwebble and Ruth Carlson are new local operators at Galesburg.

Ursal Willbur has been appointed supervisor at Galesburg.



TREE TRIMMING ON TOLL CIRCUITS,
GRAND LEDGE, MICH.

Eva Strickland has been transferred from local operator to trouble clerk at Galesburg.

E. S. Slusher and C. K. Todd have been granted a thirty-year franchise at Bushnell, Ill., and will put in a first class exchange at this point and make a connection with the Central Union toll lines. Mr. Slusher and Mr. Todd are at the head of the Macomb Company, which exchange is just one year old, and which is doing a big business and growing rapidly.

Toll Line Foreman Johnson and Toll Line Foreman Banta are making their headquarters in Galesburg. Mr. Johnson has charge of the rebuilding of the lines between Galesburg and Burlington and Mr. Banta the lines between Galesburg and Quincy.

A new 400-pair cable is being installed in

the southeast part of the city of Galesburg. George Irwin, installer at Galesburg, fell off a ladder and broke the bones in his left wrist.

Herman Hanka, Western Electric installer, has completed his job on the Galesburg board and left for Peoria where he will be inspector for the Western Electric Company.

Jacksonville District

Contracts have been secured from the Illinois Steel Bridge Company at Jacksonville for a No. 2 private branch exchange of one trunk and five stations.

Lillie Vasconcellos, toll operator at Jacksonville, has gone to California for a few months' vacation.

Anna Saeger, toll operator at Beardstown, has been promoted to evening supervisor.

Alma Merritt, evening supervisor at Beardstown, has accepted the position as night operator made vacant by the resignation of Minnie Wetzell.

Emma Kuhlman has taken a position as local operator at Beardstown.

Cecil Ryan has been promoted to the position as toll operator at Beardstown.

Kankakee District

L. R. Smart, of Indianapolis, is now wire chief at Kankakee. Rush Huff, former wire chief, and O. K. Baldwin, a former manager for the Central Union, have opened an automobile business in Kankakee, which is going nicely.

Harry Seavey, late repairman at Grant Park, has been transferred to Dwight. He is succeeded by Mr. Smith, of Manteno.

A. J. Bailey is now repairman at Gilman. Mr. Yeaman having been transferred to Onarga.

Floyd Capron, a former employe at the Kankakee exchange, returned August 1st, and is acting as patrol foreman.

F. B. Radcliff, construction foreman, is building farmer lines around Grant Park, where numerous subscribers are entering the Bell ranks.

District Commercial Manager Brown is enjoying a heavy daily increase of city and country subscribers for the Kankakee Exchange, and is keeping the plant department real busy. Kankakee is fast becoming a Bell telephone city.

Grace F. Byram, chief clerk in the district commercial manager's office at Kankakee, resigned to accept a position in Galesburg, Ill., as private secretary. Miss Byram had been in the manager's office and district office for the past eleven years, and leaves the service in high standing, with the best wishes of her many friends. Bertha Gorman, of Kankakee, formerly a clerk at the exchange, succeeds Miss Byram.

La Salle District

The commercial department have been rushed this month, LaSalle having come under new centralized accounting.

The Bell Mutual Aid Society is contemplating a social and dance.

Commercial Agent F. H. Stompe has left LaSalle to take up work at Quincy. Manager Halligan is fortunate in securing Mr. Stompe, for he is a hustler.

The Construction Department at LaSalle is using a house boat to house and feed the workmen on the tow-patch line. 'Good eats' and plenty of sleep mean good work. Foreman Fred Merrill knows a good thing and always takes advantage of it.

Paris District

Maud Beam, chief operator at Paris, entertained with a theater party in honor of Bees

Sterling
Contractors'
Barrow

Built to give and gives the kind of service which contractors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction.

It will hold over twice the load of ordinary pan-shaped barrows and will oulast two similar style barrows of any other make.

Among its desirable features are:

Channel steel legs — 16 gauge steel tray — angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip, where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.

We Invite the Comparison



of any Clayton & Lambert Fire Pots, Torches and Braziers with similar tools of any line on the market today. C. & L. fires are honestly and practically constructed, embodying every improvement which really improves, and are sold under the maker's guarantee, to operate perfectly when directions are followed. They are not an experiment; they have been known as high grade tools for over twenty-five years and have been constantly pleasing and satisfying the users.

Your nearest jobber will supply at factory price or we will ship direct if cash accompanies the order. Our new Catalog shows our complete line and includes many additions of new and up-to-date tools. It will be sent free upon request.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A.

No. 32 Torch. Price each, \$4.00 Net
No. 33 Torch. (One Size Smaller.)
Price each . . . \$3.50 Net

"Beldenite" Rubber Insulated Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue, CHICAGO

Metz, chief operator at Mattoon. The Paris operators were guests. From the theater they went to the home of Miss Beam where refreshments were served.

The plant department of the Paris exchange enjoyed a picnic in the woods just east of town on August 17th. Mr. Wright, district commercial manager, and Mr. Pettus, service inspector of Centralia, were guests. They all report a royal good time.

Peoria District

Edward Moeller has resigned his position as collector at Peoria to return to school. He is succeeded by William R. Pinkney.

Mayme F. Buchele, toll clerk in the commercial department at Peoria, has been transferred to the position of recording operator in the traffic department.

A contract has been secured from F. Meyer Brothers Company at Peoria for a private branch exchange, consisting of two trunks, cordless switchboard and seven sub-stations.

A private exchange contract has been secured from the Glipps Brewing Company, Peoria, consisting of two trunk lines, cordless switchboard and five sub-stations.

An arrangement has been made with the Jefferson Hotel, Peoria, for the Central Union Telephone Company to establish an attended pay station in the lobby.

Quincy District

A new directory was issued in August, which contains a combined list of the Central Union and Quincy Home Telephone Companies' subscribers.

Aldo Zimmerman and Walter Hermann resigned as collectors August 31st. John Barnard has accepted position as collector to succeed Walter Hermann.

Frank Redmund, general plant superintendent, and S. J. Larned, general traffic superintendent, visited Quincy after the cut-over and were very much impressed and pleased at the way all of the employees got together and hustled under the trying circumstances of the cut-over and the after effects.

Plant Superintendent H. B. Lewis and quite a number of his staff have been making Quincy their headquarters since the consolidation. Mr. Lewis says that Quincy is a very lively place and the air is so invigorating that he has been putting in sixteen hours every day at the new Quincy exchange

getting the kinks straightened out, so that everything will work smoothly.



NEAR THE EXCHANGE AT ROCKFORD, ILL., AFTER A RECENT STORM
Left to right: Pearl Spitz, directory clerk; Mary Burke, collector.

MAKE SURE

Your Fastenings to Hollow Brick, Tile, Plaster and Hollow Walls are Permanent

Use SEBCO Toggle Bolts—

there is no better method of securely attaching telephone sets, meters, switches, lamps and all kinds of electrical fixtures to marble, plaster walls, etc. Sebco Toggles are easy to use and quickly adjusted. They assure a neat and substantial job.

SMALLEST HOLE REQUIRED

THIS STAR WASHER WILL KEEP TOGGLE SECURELY IN PLACE UNTIL READY TO FASTEN MATERIAL

SEBCO TOGGLE BOLTS

Nos. 1 and 2 are made in the following sizes

Diameter	length	Size Hole Required
1/8,	3, 3 1/2, 4, 5, 6	3/8 inch
" 3/16,	" 3, 3 1/2, 4, 5, 5	3/8 "
" 1/4,	" 3, 3 1/2, 4, 5, 6	1/2 "

No. 2 Toggle Heads fit all machine screws.

Send for Samples and Catalog

STAR EXPANSION BOLT CO.

147-149 Cedar St., NEW YORK

F. A. dePeyster, traffic superintendent, and Traffic Supervisor Bradford were visitors at Quincy and the invigorating air also had the effect on them. They took off their coats, rolled up their sleeves and burned the midnight oil getting the traffic department working smoothly.

District Traffic Chief J. H. Barlow is making his headquarters at the Quincy exchange temporarily. He is assisted by J. J. Letourneau, Hane, Vail, Adams, Seguin and Turpin, all traffic men.

L. L. McMaster, traffic chief, has resigned. After taking a month's vacation he expects to accept a like position with the Mountain States Telephone and Telegraph Company, at Denver, Colo. A. Seguin has accepted temporarily the position of traffic chief at the Quincy exchange.

Rockford District

An estimate has been approved and assigned to the Western Electric Company to install additional equipment and apparatus in the main office at Rockford, work to be started January 1, 1914, and completed June 1, 1914. This estimate is to consist of three subscribers' sections with 2,800 subscribers' multiple; 800 subscribers' multiple through ten subscribers' sections and 200 subscribers' multiple through three subscribers' sections; 1,040 primary subscribers' answering jacks; 870 subscribers' primary answering jacks; 720 subscribers' multiple answering jacks; three trunk sections on two No. 8 chief operators' desks. The estimate amounts to a total of \$52,301 and provides equipment to last until September 30, 1917.

Carl Hand has resigned his position with the plant department at Rockford and will enter a university at Cincinnati.

Nina McKibben has accepted a position as collector at Rockford.

Ida Munthe, district instructor, was called to Quincy to assist in the cut-over work.

Perzel Fitch has resumed work as local operator at Rockford after a leave of absence.

Grace Wynters has been spending her vacation at Lake Delavan.

The "Blue Bell" Club has entered on its fall season and considerable interest is being manifested. Plans are under way to form a Glee club and several interesting social affairs are being arranged.

Blanche Pfanstiel, clerk in the traffic de-

You Can Save Time and Money

By

Equipping Your Office With

UNEDIT CLIPS

They are easily applied, hold securely and will reduce your mailing and filing expense.

Manufactured by

Buffalo Machine Mfg. Co.

1354-1362 West Ave.

Buffalo, N. Y.

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of

ELECTRICAL HARDWARE

PLAIN and GALVANIZED



Pole Steps

Braces, Back and Cross Arm
Break Irons
Bolts, Arm and Eye and Thru
Cable Racks and Hooks
Guy Rods and Clamps
Hub Guards

Pole Steps and Brackets
Pole Balconies
Pothead Supports
Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc.

partment, has secured a leave of absence for several months, on account of illness. Aurilla Horigan is assisting in the clerical work during Miss Pfanstiel's absence.

Frank Mills, local wire chief at Rockford, is able to be at the exchange again after being confined to his home by a severe attack of pneumonia.

Adeline Fitzpatrick, stenographer in the commercial department at Rockford, has returned from her vacation spent at the Wisconsin Lakes.

Ethel Odell, stenographer in the plant department at Rockford, spent her vacation at Elgin, Ill.

Lloyd Lange, George Elmer and Lloyd Roche are back at the Rockford exchange, Messrs. Lange and Roche being in the construction department and Mr. Elmer in the plant department.

Rock Island District

Esther Peterson, senior supervisor at Rock Island, has resigned to be married. Ruth York has been appointed to fill the vacancy. The supervisors and chief operators of the Rock Island exchange entertained at a dinner party at the Watch Tower in honor of Miss Peterson. The bride-to-be was presented with a set of handsome silver teaspoons. She also received a very pretty berry spoon from the local force.

Mary Kelly, evening chief operator at Rock Island, spent her vacation in Chicago.

Mabel Swanson, chief operator at Moline, enjoyed her vacation visiting friends in Chicago.

Myra Brimmer, repair clerk at Moline, who was recently operated upon for appendicitis, is recovering.

Ida Chambers, toll supervisor at Rock Island, has resigned.

Springfield District

Miss G. Newberry, local supervisor, spent her vacation in Virginia, Ill.

Grace McDole, local operator, spent her vacation in Clinton, Ill.

Mae Flesch, toll operator, resigned September 15th to become a nurse.

Miss C. Gadberry resigned September 1st. She will be united in marriage with Mr. Gossett in the near future.

Ruby Rockwell, toll operator, resigned September 15th, to be married to Robert Waters, who is employed at the Illinois

Watch Company. They will spend their honeymoon in Tennessee.

On August 17th the Central Union Baseball team journeyed to Rochester, where they defeated the team representing the Rochester Merchants in a close and exciting game by a score of 10 to 9. Jones, pitching for the C. U. boys, struck out twelve, holding the hard hitting merchants to seven hits, errors behind him letting in the runs. August 9th the boys had an off day, meeting defeat at the hands of Pleasant Plains in that town by a score of 1 to 2. Gordy, working for the telephone team, pitched excellent ball, but five errors coupled with three hits, scored seven runs in the 6th inning. August 16th the boys won back their lost laurels by defeating Pleasant Plains by a score of 10 to 5. The telephone team played ball behind B. Jones, whose pitching kept the visitors guessing. The star pitcher for the Pleasant Plains team was chased to the dugout under an avalanche of hits in the third inning. On September 13th the two teams met to play the tie off. August 10th Riverton was defeated by the telephone boys in what is considered an amateur record, the game being played in one hour and four minutes. B. Jones pitching for the telephone boys struck out nineteen, holding his opponents to three hits. The final score was 4 to 3. August 24th the team met defeat (?) at Mechanicsburg by a score of 7 to 4. The boys feel that they were unfairly treated, when in the seventh inning, with the bases full, B. Jones hit for three bases tying the score, and the umpire called it foul, the opposing players admitting that it was fair by several feet. We still have a number of fast games scheduled for the remainder of the season, the boys waiting to show Peoria that we do not carry "horse shoes" in our pockets.

Cleveland Division.

W. K. Lawrence, Correspondent.

With Commercial Agents

Through the efforts of L. F. Barkhauer the following contracts for private branch exchanges were secured:

Abraham Garfield, Lake Shore boulevard and East Ninety-ninth street, a No. 2 switch-

board, one trunk line and six stations. The Kemco Company, 2229 Ashland road, a cordless switchboard, one trunk line and six stations. The W. P. Southworth Company, 2013 Ontario Street, a No. 2 switchboard, ten trunk lines and twenty-six stations.

I. W. McKee secured a contract for a private exchange from the Valley Camp Coal Company, 319 Rockefeller Building, which will consist of a No. 2 switchboard, two trunk lines and six stations.

A contract for a private branch exchange which will consist of a No. 4 switchboard, two trunk lines and seven stations was secured from the Wallis Tractor Co., 844 East Seventy-second Street, by N. J. Forgeue.

Charles Ellert secured a contract for a private exchange from the American Steel & Wire Company, Foot of East Sixty-seventh Street. The equipment will consist of a No. 4 switchboard, one trunk line and seven stations. Mr. Ellert also secured a contract from the White Tool & Supply Company, 1313 West Sixth Street, which will consist of a No. 4 switchboard, three trunk lines and eight stations.

Personals

Florence Pitcher, of the operators' school, is confined to her home with typhoid fever.

Mabel Weiland, long distance operator, spent her vacation with her sister at Mount Vernon, Ohio.

Francis Ludwig, of the commercial department, gained six pounds while on her vacation at Cedar Point, Ohio, and Detroit, Mich.

Sadie Pearce, chief supervisor of the long distance school, and Miss Jeannette O'Reilly enjoyed their vacation at La Peer, Mich.

Here is a trio (Mabel Heaton, Huldah Ossman and Gusie Swanson) who said there was never a dull moment when they were at Vermillion, Ohio, for two weeks.

Alma Moeller, operator at the Main Exchange, is now at home after being in the hospital for three weeks, where she underwent an operation for appendicitis.

Minnie Deglen, number clerk supervisor at the Main Exchange, spent a couple of days in Detroit and the rest of her two weeks' vacation in Canada.

Detroit, Mich., was the attraction for Elizabeth Spall, chief operator at the Main Exchange, over Labor Day.

Dorothy Klein has resumed her duties as private exchange operator at the Main Ex-

Partridge & Anderson
Designers
Electrotypers
Engravers
Stereotypers
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
AUTOMATIC 31-757 31-758
100-16 N. Fifth Ave. Chicago

ELECTROSE
INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS
No. 2 No. 1 No. 7
No. 505 New No. 10 Old No. 10
LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
60-72 Washington St. BROOKLYN, N. Y.
60-74 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue
CLEVELAND, OHIO

change, after enjoying a two weeks' vacation with her grandmother in the country.

Carrie Bowen enjoyed her vacation among friends at Alymer, St. Thomas, Dunborn and Copenhagen, Canada.

Mrs. Nettie Lett, matron at the Main Exchange, spent her vacation at Youngstown, Ohio, visiting her parents.

On August 28th twenty-six of the long-distance operators and supervisors surprised Florence Haynes at her home with a shower.

J. T. Daniels, special agent, has returned from a visit with his mother in Franklin, Mass., and an automobile tour of New England.

R. C. Crater, chief clerk to the agent for connecting companies, spent his vacation visiting his mother in New Comerstown.

Carrie Duvall, stenographer for the agent for connecting companies, spent her vacation in Cleveland and Detroit and also enjoyed a fine lake trip.

conduit have been put in this season at Springfield. Additional underground and overhead cable is also being installed, and additional section of divided multiple switchboard will also be placed in position soon. This will enable this growing exchange to get rid of some one hundred and fifty orders held up for no facilities, as well as to provide for future growing business.

Springfield officials are more than pleased with the operation of the centralized accounting department, and predict for it a full success in the State of Ohio.

Toledo District

Nellie Sheridan, night chief operator at the Defiance, Ohio, exchange of the Northwestern Telephone Company, after working five years without being absent, left Defiance on August 16th, presumably on her vacation. The next day the chief operator received a letter from her stating that she was no longer Miss Sheridan, the telephone operator, but was now Mrs. Horner and was on her way to her newly furnished home at Akron, Ohio.

Hazel Irene Coonrod and Doris Black, clerks in the commercial department at Toledo, resigned September 1st.

N. B. Penny, manager of the Crescent Telephone Company at Weston, Ohio, has sufficiently recovered from his recent illness to be about and hopes soon to be back at work.

A private branch exchange contract has been taken with the Toledo Transfer Company, Toledo, covering two trunks, switchboard and four stations.

During the latter part of August the village of Archbold, Ohio, suffered heavy losses from a fire which destroyed the principal part of the down-town district, including the telephone exchange of the Archbold Telephone Company which connects with Toledo toll lines. W. D. Mattison, of the Western Electric Company, arrived on the scene shortly after the fire to render such assistance as he could and was followed by F. E. Triebner of the Western Electric Company who sold the company a complete new central office equipment.

Frank Thomas, lineman at North Baltimore, has resigned to accept a similar position at Findlay, Ohio. The vacancy is filled by Harley Swanner of Lima.

Garnet Keifer, night chief operator at Findlay, has been promoted to supervisor, succeeding May Routson, resigned. Vera Nemire, toll operator at Findlay, succeeds Miss Keifer as night chief operator.

Margaret Walker, operator at Findlay, resigned August 9th, and was married to Ray Cooper, of Lima. She is succeeded by Lela McCartney.

Beulah Gassman has taken a position as operator at Findlay, succeeding Nellie Palmer, who has been transferred to toll.

YOU'RE WASTING TIME

If You Haven't Started Using FRANKEL'S TEST CLIPS

No peeling the wires. Permanent, positive connection every time and no damaged wires to repair.



No. 2521	Each
Doz. lots	25c
100 "	12 1/2
500 "	11
	10

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY



ON THE ROOF OF THE TELEPHONE BUILDING, CLEVELAND

Left to right: Miss B. Ryan, Miss A. Brown, Miss Leete, Miss K. Moore, Miss A. Kelley, Miss A. Moore, Miss Leete.

She was presented with many useful and ornamental gifts. Miss Haynes is reported to be contemplating matrimony in the near future.

Francis Baker and her mother took a trip to Simcoe and Stratford, Canada, while on her vacation. They went by way of Detroit and returned by the way of Niagara Falls.

Kittie Thomas, who resigned August 31st, will soon be Mrs. Otto Pelz.

Mr. and Mrs. N. Anderson and son enjoyed a two weeks' trip up the lakes on the steamer *Steinbrenner* during the month of August.

Lillian Hrabak, formerly an observer at Main, has been appointed assistant chief operator at the Main exchange. Miss Hrabak is filling the place of Miss Ernst, who was transferred to the traffic department as private branch exchange instructor.

Miss Krauss, former operator at the Main exchange, became a bride in August.

Meta Wohlgermuth and Roda Gau, of the Doan exchange, say that Grand Rapids, Mich., is a most delightful place to spend a vacation.

Helen Pate of the commercial department spent her vacation on a trip up the lakes, and she also paid a visit to her uncle who resides at Gull Lake, Mich., during the summer months.

Ohio Division

B. T. Calaway, Correspondent,
Columbus

Division Offices

E. A. Reed, general manager, has returned from a trip on the Great Lakes to Duluth, including side trips to Mackinac and Georgian Bay.

Blanche Wagers, stenographer for the chief commercial agent, spent her vacation at her home in Deerfield.

Letta Casey, stenographer in the general manager's office, and Sue Hammond, division mail clerk, have returned from a very pleasant vacation.

Clifford C. Morris visited in Youngstown during his vacation and also enjoyed an outing at Buckeye Lake.

Edna McLaughlin, stenographer, has returned from a vacation spent at Cedar Point.

Columbus District

The Ohio State Fair held at Columbus, September 1st to 5th inclusive, was served by the Central Union Telephone Company exclusively, there being a three-position switchboard, thirty-four trunks and seventy-one stations with coin collectors. The receipts were approximately \$500.

A meeting of the commercial agents of the Columbus district was held at the Athletic Club Tuesday evening, September 9th, and the subject "Saturation" was discussed. It was pointed out very forcibly that an agent should never leave a prospect until he is satisfied that every need in a telephone way is cared for and not be satisfied with simply securing a signature regardless of whether a man's wants are fully supplied or not.

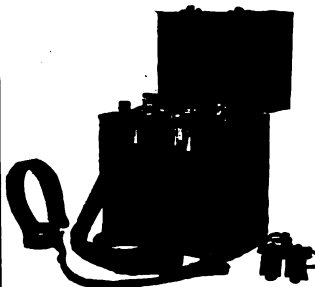
Dayton District

Lillian McDonald, toll bookkeeper at Dayton, was married on July 25th to Edward Sheeran of the G. J. Roberts Company of Dayton.

John Hardy, collector and solicitor for the past nine years, has severed his position with this company and gone with the Dayton Lumber and Manufacturing Company.

About two miles of additional underground

Ask the Man That Owns a Telefault



J. T. Green, Supt. of Fire and Police Alarm Telegraph for the city of Toledo, Ohio, wrote under date of September 3rd, regarding his experience with Matthews Telefault as follows:

"Some time ago a large boat dragging anchor, broke one of our heavy water mains crossing the Maumee River, and the water main being buried, the divers had considerable trouble in locating it, let alone the break. When the water main was laid The Western Union Telegraph Co. installed a large submarine cable in the same trench; the cable was undisturbed by the boat's anchor so their service was not interrupted.

"To locate that position of the water main in the river, we took a few good vacant pairs through the Western Union Cable and ground same on the opposite side of the river, connecting the Telefault to pairs and ground same on water pipe. We then used a long water-proof cord and installed finder in the vapor and water-proof glass receptacle with suitable guard. We had no trouble in picking up the cable by dragging same along the bottom of the river. Of course, locating the cable gave us the trench that the water main was laid in."



3728 Forest Park Boulevard

You can get them from the Western Electric Co.

Even the Bell Wires Were Placed With



KLEIN Linemen's Tools

SINCE 1857 IS A LONG TIME BUT SINCE THEN KLEIN TOOLS HAVE WIRED THE EARTH

YOUR interests require that you become familiar with our house, our product and our ways of satisfactorily satisfying any demand of the electrician, troubleman, lineman, construction man, superintendent or manager.

Our catalogue is of pertinent value to you. Write for it.

You can buy the product from many dealers and all electrical supply houses and if you do not find what you want write us direct.

MATHIAS KLEIN & SONS

562 W. Van Buren Street
Chicago, Ill., U. S. A.
Wabash 628

The telephone line that lasts and keeps down transmission losses is strung on



"Thomas Quality" Porcelain Insulators

Wherever service conditions are unusually severe these brown glazed porcelain insulators will meet the requirements. Every insulator is rigidly inspected before it leaves the factory.

Manufactured by

The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

Offices in all principal cities



Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine to Washington

National Pole Company

Escanaba, Michigan

When you want a Lock you want the best.

EAGLE LOCK CO.

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

"Always Reliable Torches"

Are the best on the market. They are thoroughly tested before leaving factory which enables us to guarantee them



Fitted with PATENTED "never leak" pump and PATENTED "one piece" soldering iron rest.

Burners on No. 25 and No. 26 torches generate gas much quicker than other burners, enabling the user to obtain a blue flame in a shorter time.

We also manufacture a complete line of furnaces especially adapted for the use of telephone and telegraph companies.

Manufactured by
OTTO BERNZ, Newark, N. J.

Incorporated 1911

ALBERT G. SEEBOTH COMPANY

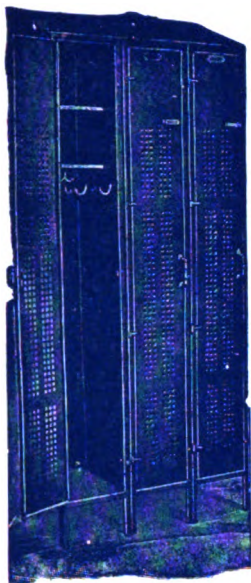
MILWAUKEE, WIS.

Manufacturers of

Cotton Batts, Cotton and Woolen Waste

Phone South 532

Place your orders with us, we save you money.



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

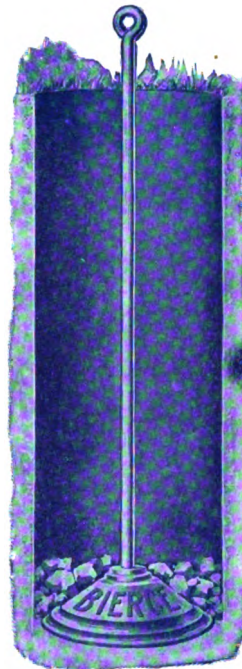
We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

TAKE NOTICE



Pat. Aug. 19, '13

The **Bierce Anchor** has been approved by the A. T. & T. Co., of New York.

The Bell Companies of Ohio, Indiana, Michigan, Illinois and Wisconsin have been using Bierce Anchors for months past. Ask the Bell man in your territory.

Costs less, holds more, will not creep, and can be buried quicker than any other anchor.

Sent on approval.

Write us.

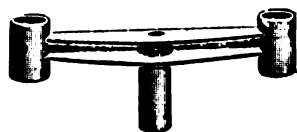
THE SPECIALTY DEVICE CO.
112 West Third Street, CINCINNATI, OHIO

DURABILITY—ECONOMY—SAFETY

WHEN BUYING MATERIAL THESE FEATURES ARE ALWAYS CONSIDERED

WE HAVE COMBINED THEM IN THE MANUFACTURE OF

**ELECTRICAL
CONSTRUCTION
SUPPLIES**



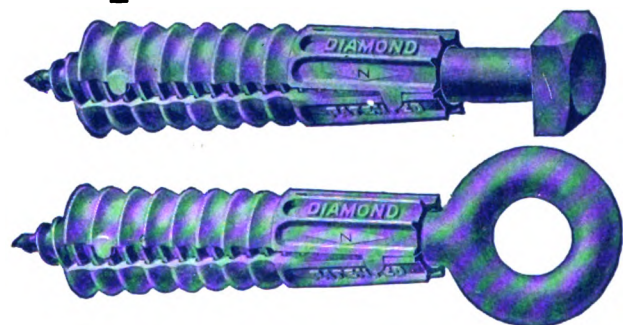
**INSULATION BRACKETS
INSULATION BREAK-ARMS
INSULATION PINS
CROSS-ARM SUPPORTS
FEEDER ARMS
CONDUIT FRAMES AND
COVERS**

MALLEABLE AND CAST IRON PIPE FITTINGS

THE SIGN **M** OF QUALITY

ILLINOIS MALLEABLE IRON CO.
CHICAGO, ILLINOIS

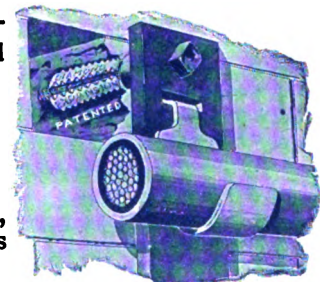
Diamond Expansion Bolts



Make Permanent Fastenings to Brick, Stone and Concrete for

Heavy Electrical Equipment—

Guy Ropes, Cable Racks, Switch Boards, Dynamos and Motor Bases, Etc.



Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 West Street, Cor. Cedar, NEW YORK



Fairy Magic—Telephone Reality

A tent large enough to shelter his vast army, yet so small that he could fold it in his hand, was the gift demanded by a certain sultan of India of his son, the prince who married the fairy Pari-Banou.

It was not difficult for the fairy to produce the tent. When it was stretched out, the sultan's army conveniently encamped under it and, as the army grew, the tent extended of its own accord.

A reality more wonderful than Prince Ahmed's magic tent is the Bell Telephone. It occupies but a few square inches of space on your desk

or table, and yet extends over the entire country.

When you grasp it in your hand, it is as easily possible to talk a hundred or a thousand miles away as to the nearest town or city.

In the Bell System, 7,500,000 telephones are connected and work together to take care of the telephone needs of the people of this country.

As these needs grow, and as the number of telephone users increases, the system must inevitably expand. For the Bell System must always provide a service adequate to the demands of the people.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

November, 1913

No. 4

Bell Telephones

AND CONNECTIONS

In the Territory of the

Central Group of Companies

OCTOBER 1, 1913

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	492,690	234,007	726,697
INDIANA	85,887	179,119	265,006
OHIO	169,036	176,850	345,886
MICHIGAN	198,717	58,881	257,598
WISCONSIN	<u>132,640</u>	<u>111,337</u>	<u>243,977</u>
	1,078,970	760,194	1,839,164

PIONEER CONVENTION NUMBER

BELL • TELEPHONE • NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., NOVEMBER, 1913

Number 4

Chicago Entertains Third Annual Convention of Telephone Pioneers of America

Men and Women Who Helped the Telephone Industry Through Its Early Trials Meet and Renew Old Friendships—Varied Entertainment Program for the Visitors.

By Clifford Arrick

The third annual convention of the Telephone Pioneers of America, held at Chicago October 17th and 18th, was a notable event for both the city of Chicago and the Pioneers. Telephone officials of the Central Group left nothing undone to make the occasion a memorable one and the metropolitan press gave liberal space in reporting the various incidents connected with it.

The registration list of visiting Pioneers showed that they had gathered from every section of the country; it included the name of nearly every man who has played a prominent part in the development of the telephone art, including those whose genius for mechanics devised the earliest appliances and apparatus, those who struggled with the intricate and almost insurmountable obstacles that attended the early financing of the industry and those who strove to bring to a workable practical conclusion the establishment and operation of local telephone exchanges and the commercial success of the long distance lines.

The most notable personage in attendance was Theodore N. Vail, President of the American Telephone and Telegraph Company, whose name is associated in the minds of the public with the greatest achievements of the telephone world. Mr. Vail is also the President of the Telephone Pioneers, and he displayed the keenest interest in every feature of the convention whether of a business or social nature. On the response card, sent to members asking what events they wished to participate in, Mr. Vail wrote across the face "Everything." And he stuck to his text, with evident enjoyment.

On the 16th, the day preceding the convention, the influx of Pioneers began. Vice President Burt, of the Chicago Telephone Company, and his corps of assistants on the Reception Committee were on hand at the Congress Hotel to greet the visitors and assist them in getting comfortably located and registering at the Registration Bureau. Early Friday morning a special train arrived over the Pennsylvania Railroad, bringing the New York, Philadelphia and Pittsburgh Pioneers, their wives and invited guests. They

spoke in highest praise of the courtesy of the Pennsylvania officials who had spared no pains in making the trip a pleasant and agreeable one.

The arrival of the eastern party marked, practically, the opening of the convention festivities and was the signal that started a series of entertainments which kept the visitors occupied almost continually until the lights went out in the banquet hall on Saturday night.

The Business Meeting.

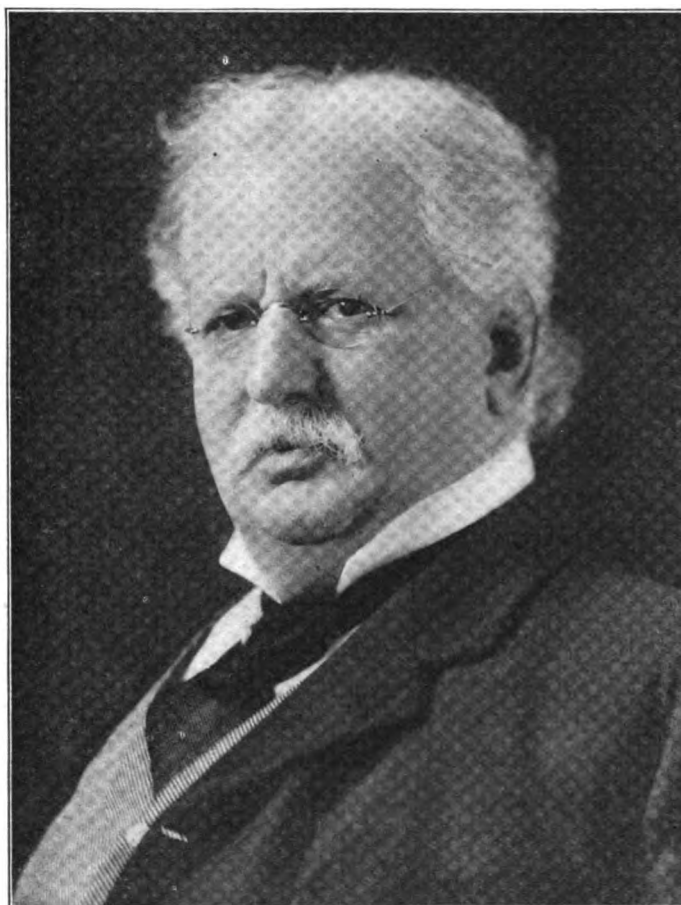
Morning Session: At 10:30 Friday morning President Vail called the convention to order, in the Gold Room of the Congress Hotel. In opening the proceedings Mr. Vail said:

"Ladies and Gentlemen: First I owe you an apology for the inconvenience to which you have been put by the postponement of this gathering, in order that I might meet with you; however, your reception has diminished my feeling of sorrow, and my regret is not so keen as it was.

"Allow me to express to you my hearty appreciation and thanks for this occasion which made it possible for me to be with you, and to convene this third anniversary of that great brotherhood, a brotherhood unique in that while most of you are Pioneers, all of you still have an active membership in the great system; and while your work in the past has been great, the work that will in the future be done on the foundation you have laid and the policy you have established and which will endure throughout all time, will be greater.

"Ladies and Gentlemen, Fellow Pioneers and Associates: I greet you as a great brotherhood, interdependent in that each of you have assisted and been assisted by the other; in community, in that

throughout this whole organization is only one common thought resulting in one common policy which has actuated one common movement; universal, in that the genius which originated the policy, and the purposes, and the enthusiasm which has carried it out so wonderfully is the great Bell System, and will be the great system of the future, be it private corporation or



THEODORE N. VAIL.
President of the Telephone Pioneers of America.

government-owned, boundless and without limitations other than those of geographic, national and commercial nature.

"The City of Chicago extends to you its welcome, and one of our associates, Mr. Sunny, will speak for the city and welcome you to its hospitable doors. I introduce Mr. Sunny."

At the close of Mr. Sunny's address of welcome* Mr. Vail called Frank H. Bethell, Vice President of the New York Telephone Company, also a Vice President of the Telephone Pioneers, to the chair to preside over the convention while organizing for the transaction of business.

Early in the proceedings W. H. Adkins, of Atlanta, Georgia, was recognized and on behalf of the Southern Bell Telephone and Telegraph Company extended a cordial invitation to the Pioneers to hold the convention of 1914 in Atlanta. The invitation was referred to the Executive Committee, who will determine the place of holding the next convention later.

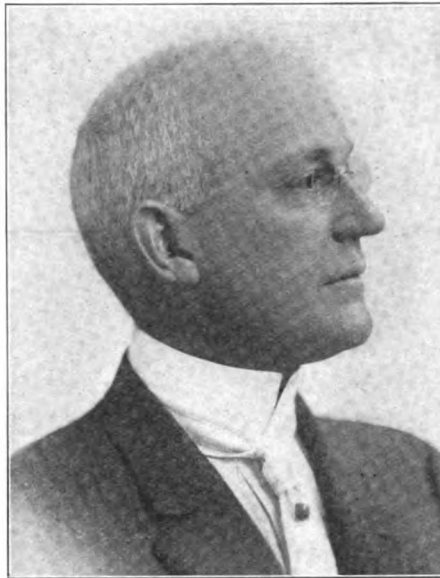
A number of amendments to the by-laws were proposed, all of which carried with the exception of one to change the rate of the annual dues. This question was put over for one year.

By amendment the title of "Junior Pioneer" is abolished. All persons otherwise eligible may now become Pioneers in regular standing after twenty-one years' telephone service, whether that service began prior to 1891 or not. This makes it possible for all those now engaged in telephone service to become Pioneers on rounding out twenty-one years' service.

By amendment the office of Secretary becomes appointive by the Executive Committee instead of being an elective office as heretofore.

The balance of the amendments cover the filling of vacancies in the list of officials, define the duties of the Executive Committee, and those of the Secretary.

Mr. Sunny's remarks appear in full on page 7.



ANGUS S. HIBBARD, 1881.
Who Can See Ahead to 2113.

The last formal business before the close of the morning session was the election of officers for the ensuing year. The Nominating Committee proposed the following names:

President, Theodore N. Vail.

Vice Presidents, Thomas D. Lockwood, Boston; C. F. Sise, Montreal; George E. McFarland, San Francisco; Thomas B. Doolittle, Pine Orchard, Conn.

Treasurer, George D. Milne, New York.
Executive Committee, Charles G. DuBois, New York; Angus S. Hibbard, New York; Frank H. Bethell, New York.

Amid great applause the Secretary was instructed by a rising vote to cast the ballot of the convention for Theodore N. Vail for the office of President.

The names of the candidates for the other offices, as recommended by the

Nominating Committee, were voted on in the same manner, the Secretary casting the ballot of the convention.

At the conclusion of the voting Mr. Bethell relinquished the gavel to T. D. Lockwood, who presided during the remainder of the business meeting.

President Vail announced the appointment of E. F. Sherwood, of New York, and J. T. Moran, of New Haven, Connecticut, as members of the Executive Committee, conforming to the provision in the by-laws empowering the President to appoint two members of that committee.

The morning session closed with an address by Mr. Lockwood.¹

Afternoon Session: The afternoon session was called to order at 2 o'clock and was devoted to addresses by N. C. Kingsbury,² of New York; Thomas A. Watson,³ of Boston, and Thomas B. Doolittle,⁴ of Pine Orchard, Conn.

The speakers held the close attention and interest of the convention. These men, the best years of whose lives have been spent in the development and up-building of the nation's telephone system and who now occupy posts of responsibility and power in their chosen calling, were well fitted to treat the questions with which they dealt, and each was greeted with cordial applause.

At the conclusion of Mr. Watson's address, there being no further business, the meeting adjourned *sine die*.

The Show.

The first entertainment provided for the visitors was a theatrical performance, a musical comedy, under the direction of H. F. Hill, General Manager of the Chicago Telephone Company. The play was written, staged and acted by men and women connected with the telephone or-

¹Mr. Lockwood's address appears in full on page 11.

²Mr. Kingsbury's address appears in full on page 13.

³Mr. Watson's address appears in full on page 21.

⁴Mr. Doolittle's address appears in full on page 18.



CAST AND STAGE SETTING OF "TELEPHONER," GIVEN AT STUDEBAKER THEATRE FOR TELEPHONE PIONEERS.

ganization, and to say that the result was creditable is but faint praise, as the generous plaudits of the listeners testified.

The audience reminded one of the assemblages that gather on the nights when favorite grand operas are billed for presentation, so brilliant was its appearance, so eager its anticipation, and so hearty its enjoyment. Players vied with each other for the applause of their guests and right liberally were their efforts rewarded. The curtain did not fall until nearly midnight, as every vocal number had to be repeated, while in some instances a second and third encore was demanded. The program containing the details of the scenario, cast and so forth appears elsewhere in this issue.

On the Trail of the Pioneers

Saturday morning the Pioneers left the Congress Hotel promptly at 9:30 o'clock, with Frank A. Ketcham of the Western Electric Company as guide, for a journey over the Trail of the Pioneers nearly a thousand miles west of the point at which it was abandoned the previous year.

Seventy automobiles were required to carry the party, which included all ranks, Pioneers, near Pioneers and Pioneers not so near.

The Trail led, first, to the Administration Building of the Central Group of Bell Telephones, where the party dismounted—detained—debouched—disgorged—decarred—or whatever a party does under similar circumstances, and made a short tour through the building, after which it returned to Michigan Boulevard and the trip over the real Trail began.

Passing the historic site of Fort Dearborn, the old Kinzie home and the famous Rush Street Bridge, Lincoln Park was approached through the beautiful Lake Shore Drive that skirts the shore of Lake Michigan.

Through the Park, rich in specimens of the sculptor's art, radiant in Nature's adornment and replete with the things that go to make up the playground of half a million of Chicago's citizens, the automobiles sped on over the smooth-surfaced roadways of the famous Park System.

Logan Square, Humboldt Park and Garfield Park were threaded by the Trail, the attention of the visitors being directed to points of interest as they were passed.

At Garfield Park the Trail turned sharply to the west, following Washington Boulevard to Forty-eighth Avenue, where it turned south to the gates of Hawthorne, the home of the Western Electric Company.



Mr. Hibbard teaches steps at the dress rehearsal.



REWARD

One Billion Dollars

will be paid for the

Rediscovery and Introduction

of the lost art,

TELEPHONY

The citizens of the world, fearing ruin and annihilation from a continuation of present methods of communication, offer the above reward to the individual, firm or society through whose efforts there shall be

Restored for the Service of Humanity

THE Telephone

lost to the world in the legendary cataclysm of 1993.

This proclaimed and done by his *Royal Hand*, for the restoration of *privacy, personality, purity and peace*, and now ordained and ordered by

THE KING

HANDBILL EXPLANATORY OF ACT II OF TELEPHONE PLAY, DISTRIBUTED TO AUDIENCE BEFORE CURTAIN ROSE ON ACT.

The party arrived about 11:30 o'clock and so were able to see a part of the plant in operation before the Saturday closing hour, noon, arrived. Guides piloted the visitors through several departments, one of the most interesting of which was the cable plant, where sections of the giant 600-pair cable were in process of manufacture.

The inspection finished, luncheon was served in the dining room on the second floor of the Refectory Building. An excellent band composed of employees of the Company played during the luncheon hour.

After luncheon all assembled on the lawn in front of the Hospital Building and a photograph was taken, then steps were turned toward the baseball field, where a game of baseball was scheduled between the teams of the Western Electric Company and the Chicago Telephone Company. The game went ten innings to a tie, 3-3.

The Trail from Hawthorne followed the South Park System, touching Douglas, McKinley, Gage, Washington and Jackson Parks, the Midway and Grand and Michigan Boulevards, the Pioneers being landed at the Congress Hotel, the place of beginning.

The Banquet

At 7 o'clock the Pioneers and their guests assembled in the Elizabethan Room of the Congress and half an hour later proceeded to the Gold Room, where the banquet was laid.

Upon entering the hall the eyes of all were held by the name "Vail" that blazed out in letters eighteen inches high from the balcony rail at the west end. At the east end the name "Bell" glittered in similar form.

Tables were spread in the balcony as well as on the main floor of the Gold Room, and at each place was a candlestick, modeled on the lines of a telephone receiver, and surmounted by a dainty white shade bearing the symbol of the Pioneers and a Blue Bell. The holders and shades were the banquet souvenirs.

A delightful and elaborate menu was served, during which a cabaret performance was given, including specialties by some of those who had participated in the performance of the previous evening.

The scene, which was one of dazzling brilliancy, will hold a permanent place in the memory of those whose good fortune it was to be sharers therein.

It was well toward midnight when the banqueters arose. There was a rush for autographs, space for which had been provided on the menu cards; felicitations were exchanged, farewells spoken, and the Convention of the Telephone Pioneers of America, held in Chicago, October 17 and 18, 1913, passed into history.

"Telephonery"

Mr. H. F. Hill presents

"Telephonery"

A Phonemare in 2 Convulsions and 3 Spasms.

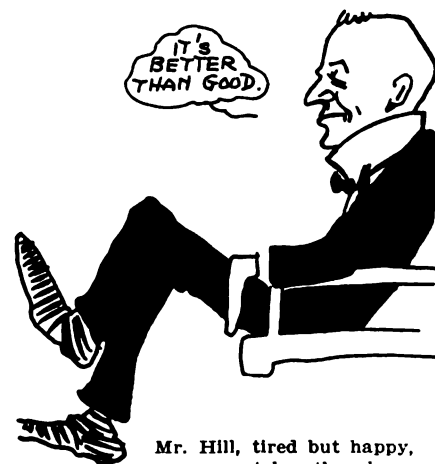
Lyrics by Hibbard, Bangs, Allen and Atwater.

Libretto by Chance (not Frank).

The Cast.

Act I.

Edward Everett Wrest, a Negro Porter.
.....H. P. Wayman
Oliver Eldridge, Western Investor.....
.....M. S. Johnson
William Hampton, Western Investor.....
.....F. E. Chandler
G. G. Hubbard, a Friend of Sanders.....
.....A. E. Van Hagen
T. A. Watson, an Expert.....A. L. Petticola
Thomas Sanders, the First Promoter.....
.....R. M. Bennett
Banker Testy, a Skeptic; sporty, but
tight.....A. R. Bone
Joey O'Connell, a Messenger Boy.....
.....Eric Hurder
Apple Mary, a Fruit Stand Keeper.....
.....J. L. Wayne, 3d
"so slender, with her auburn hair."
A type in older times, in Boston, common—
But now, alas, that's in Chicago, rare."
Foreman Sunny, of the Gang..R. H. Bennett



Mr. Hill, tired but happy, watches the play.

Thomas D. Lockwood, an Investor.... A. R. Maynard
 Thomas B. Doolittle, a Yankee Inventor... C. B. Robinson
 E. T. Gilliland, a Hoosier Inventor... T. J. Hardy
 Emilie Berliner, a young German Inventor... W. H. Thomas
 H. W. Pope, Manager of Telephone Exchange... J. J. Cleary
 Charlie Fuller, First Switchboard Operator... Edward O'Grady
 Policeman Muldoon... G. L. Adkins
 Bob Cline, a Lineman... L. W. Layton
 Anna Belle Raymond, Girl Operator... Miss Mabel Nelson
 Isabelle Ryan, Girl Operator... Miss Myra Kane

Act II.

Chairman... A. R. Maynard
 Vice Chairman... J. C. Weisert
 Operator... Paul Sainsbury
 Porter... H. P. Wayman
 Messenger... Eric Hurd
 Know-It-All... R. W. Sullivan
 First Voice... W. G. E. Pierce
 Second Voice... T. E. Freeman
 First Shade... J. L. Wayne, 3d
 Second Shade... J. W. Bradshaw
 Third Shade... C. E. Robinson
 Fourth Shade... L. A. Zielinski, Jr.
 Picture Girl... T. J. Hardy
 Ballet Girls, Wireless Linemen, Chorus.

Staff.

H. P. Wayman... Stage Manager
 H. F. Hill, Jr... Assistant Stage Manager
 T. J. Hardy... Assistant Stage Manager
 W. T. Purdy... Musical Director
 W. E. Conrad... Treasurer
 A. P. Hyatt... Properties
 J. E. Monroe... Stage Carpenter
 A. P. Allen... Programme
 L. W. Layton... Master of Costumes
 Miss Casey... Mistress of the Wardrobe
 Miss Bessie Keene Doyle... Mistress of the Dance

Members of the Chorus.

The following employees of the Chicago Telephone Company and Western Electric Company composed the various chorus groups of linemen, boy operators, pony ballet and girl operators, wireless linemen, etc.:

Misses

Emma Bauer
 Alma Bazner
 Marie Bolvin
 Augusta Brockman
 Belle Caufield
 Haze Daly
 Rose Duffy
 Minnie Dyer
 Loretta Finerty
 Mary Haggan
 Durell Hall
 Gertrude Halpin
 Elsie Hoeflein
 Myra Kane
 Monica Keon
 Bessie Kiernan
 Erna Lawrenz
 Anastasia McGuire
 Mabel Nelson
 Edna Oakes
 Catherine O'Connor
 Ethel Shea
 Ruby Thompson
 Hazel Tipping
 Mae Walsh
 Ella Willard

Messrs.

G. L. Adkins
 J. V. Brophy
 F. E. Chandler
 A. L. Findelsen
 C. R. Findelsen
 H. W. Fox
 A. J. Gerritse
 S. H. Harrison
 A. U. Hoefler
 Mark Hoskins
 M. S. Johnson
 W. F. Marggraf
 J. E. Martin
 B. P. Mengel
 H. W. Morris
 C. A. McFarlane
 P. N. H. Munson
 W. Nelson
 C. B. Robinson
 F. B. Rozlene
 E. Seguin
 W. R. Spratt
 R. W. Sullivan
 C. E. Sutton
 A. B. Swanson
 R. L. Tierney



Mary: A giniwin soul from the ould sod, who gets her share of "Votes for Women."

Synopsis.

Act I.

The Past.—The Pioneers of 1878—or Landing the First Capitalist. Composed and set upon the boards by M. D. Atwater, A. P. Allen and E. H. Bangs.

Scene 1.—Boston Common and Tremont Street. Financial Plans and Troubles—Apple Mary's Stand.

Scene 2.—The Bell Storeroom and Workshop. Developing "Standard" Equipment under difficulties.

Scene 3.—The First Bell Exchange. Boy Operators vs. Girl Operators—Testy is won over.

Notice: Several hours elapse between the scenes. But even at the expense of Realism we have used our Poetic License to shorten the interval, as some of the audience wish to catch the last horse car home.

Act II.

"The Future."—2113 A. D. de Composed into the form of "Ozone" and wafted through space by Angus S. Hibbard.

Scene.—A Public Meeting of Protest against the chaotic service of the American Thought Transference Co., and an appeal for the restoration of the Peace and Privacy of the Telephone.

First-nighters at the Studebaker Theatre on October 17th, where the initial performance of "Telephony" was presented



Everett Wrest, Negro Porter, who obeys the orders of his union in order that he may wear a union suit.

under the direction of the H. H. (Hibbard-Hill, not Hearst-Harrison, or Hannah-Hogg) Amusement Company, witnessed a performance that will go down in thespian annals as the greatest theatrical production of modern time.

Under the masterly direction of Manager Hill "Telephony" made the efforts of Belasco, Liebler and those old-line monarchs of scenic illusion, Brooks & Dikson, look like a bunch of charades in a country school house. The book, on which Hibbard, Bangs, Allen and Atwater bonnyclabbered put Bernard Shaw and Captain King back to the post and lashed them there.

Dramatic intensity, mixed with kaleidoscopic frivolity that twinkled and scintillated like the froth that lies upon the bosom of storm-tossed waves, marked every line, awakening sensations illusory, intoxicating and at the same time prodigious in their effect upon the minds of the audience.

The cast oracular and opulent of voice to a man—and woman—passed to and fro through the scenes of the mimic life they portrayed, holding their auditors (Garvey and otherwise) spellbound by their utterances and entranced by their exquisitely diaphanous costuming, which was at times regal in its splendor.

The scenic properties, stupendous in design and miraculously manipulated, transported all who saw them from mortal environment into the realms of the word painters.



Banker Testy: Who has a "soft side" to a hard nature.

Gust after gust of applause shook the First Ward in which the Studebaker is located. Strong women wept and dainty men fainted with the realism of the monstrous production. So great was the mental strain that the local board of censorship decided to limit the run to one consecutive night, after which the manuscript is to be destroyed, thus denying to posterity a boon of priceless value.

Notes of the Play

In the first act H. P. Wayman and J. L. Wayne, 3rd, were natural and convincing in their respective roles of Edward Everett Wrest, a negro porter, and Apple Mary, a fruit stand keeper. R. H. Bennett, G. L. Adkins and Edward O'Grady sang with good effect the numbers assigned to them as did Misses Haggan, Nelson and Kane. The parts were all exceptionally well taken and to do full justice individual mention would have to be made of the entire cast.

In the second act Mr. Wayman as the porter and Paul Sainsbury as the operator, carried the principal roles most creditably, while as in the first act the balance of the cast performed in a manner meriting the liberal applause bestowed upon them.

The poney (chicken) ballet was a scream.

The piece de resistance of this act, however, and to our mind of the show, was the operators' chorus "When the Little Lights Go Twinkling," sung by thirty charming girls on a darkened stage, with



A Boston' Police-man of the late '70's.

electrical flash lights that sparkled and twinkled rhythmically first toward the audience and were then turned upward and allowed to flash on the rosy faces of the singers, thus forming a picture to be likened only to a glimpse into fairy-land.

The Manikin was "in again." (See Hebrews 13 Chap., VIII verse.)

The audience, made up of brilliantly gowned women and men in open-faced scenery, represented the flower of the telephone world. Not the whole conservatory, to be sure—somebody had to stay at home to receive the daily 26 million calls—but there were enough presidents, vice-presidents, general managers and telephone haut ton to indicate that the greenhouse was a somewhat lonesome spot that night. The enthusiasm of the audience was in keeping with its ecstacy, and demanded every number on the program twice and in some instances as in the case of the operators' chorus, repeated encores were demanded.

Manager Hill and his able corps of assistants are entitled to the highest commendation for the success which crowned the work of weeks and sent everyone away rejoicing.

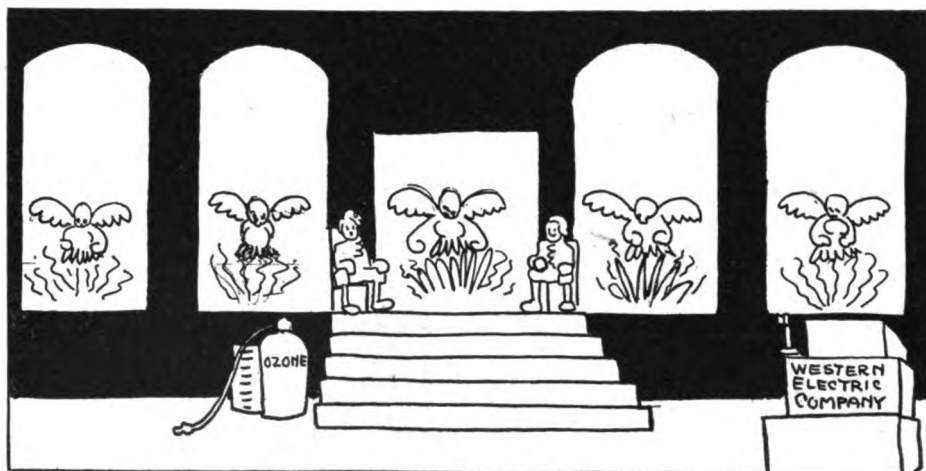
A brief synopsis of the play:

The first scene is laid on Boston Common in 1878 and the lines depict the sentiment that existed against the telephone at its birth, particularly in financial circles.

The second scene shows the workshop of the early pioneers and the surroundings and difficulties that confronted Watson, Lockwood, Gilliland, Doolittle and Berliner at the birth of the telephone. The third scene was in a switchboard room, the switchboard being operated by a crowd of noisy, harum-scarum boys who made the life of H. W. Pope a seething inferno. Matters finally became so bad that girl operators were successfully tried out and the scene and act ends with a Vision of the Future and The Blue Bell.

The second act opens on a weird scene portraying the chaotic state of the world in 2113, due to the Universal Thought Transference and the loss of the means of individual and private communication. A regard of \$1,000,000,000 has been offered for the restoration of the lost art of Telephony. Relics of this lost art have been found in some ancient ruins together with the names of some of the men who made possible and operated the Telephone System. Their descendants are gathered together for the purpose of restoring the lost art.

From study of the old records, found with the relics, and the application of the information to what was heretofore



STAGE SETTING FOR ACT II.

regarded as legendary lore, the girl operator of 200 years before is brought back together with a so-called oracle, who tells of the glories of the past, the greatness of the future and of the restoration of the Blue Bell.



The Boy Operator who says "Go to L" to patrons. Aren't we glad he's gone.

Banquet Notes

There were several post-banquet parties, one being given in the Florentine Room by Mr. Frank H. Bethell, Vice President of the New York Telephone Company, to the following chief operators of the New York Company:

K. V. Pettit, J. S. Mott, M. S. Simmons, M. M. Walker, L. M. Davenport, R. Sullivan, K. M. Schmitt, A. Greenslade, C. A. Wallace and F. C. Carricross.

The party was delightfully entertained with a series of monologues by Col. T. T.

Ramsdell of Buffalo; H. J. Shultz, and Clifford Arrick were among those present.

Uncle Bill Boyd was down from the 18th floor but went up again. Still up as we go to press.

Mr. Angus Hibbard, of New York, Fridayed and Saturdayed in Chicago, for the show and banquet. He was reported to be still singing as he passed Crown Point, Ind., on the return trip.

The Silver Kings: Doolittle and Doolittle.

General L. N. Whitney was up from Indianapolis in his new velour head-liner.

If the managers had only stuck to "Ours" for the cabaret—"Has anybody seen Ro vah"—ach Gott!

Uncle Dick McComas was here from Cincinnati.

General Hill wore the most profligate



A. R. Maynard Discusses the Decadence of the Times in A. D. 2113.

profusion of passionate pleats ever seen west of Canal Dover.

General E. A. Reed, N. S. N. P.* was the life of Table 15.

*Not-So-Near-Pioneer.

STUDEBAKER THEATRE ADMIT BEARER TO ONE RESERVED SEAT		OCTOBER 17, 1913	MAIN FLOOR N LEFT 1
FIRST PRACTICAL DEMONSTRATION IN CHICAGO OF BELL'S WONDERFUL TOY "THE TELEPHONE" ALSO TO A PRELIMINARY TEST OF THE "MAGICAL THINKAPHONE"			
ABSOLUTE SILENCE IS REQUESTED OF AUDIENCE			
TELEPHONE PIONEERS OF AMERICA			

ADMISSION TICKET TO PIONEER'S SHOW.
 In Imitation of Ancient Ticket to One of Professor Bell's Lectures.

General H. O. Seymour couldn't stand for the liquids. There was none of that which made Milwaukee famous.

President Pettingill was there from the sun-kissed plains of Missouri, looking every inch a king in a set of "Made in Chicago" scenery.

General Arthur von Schlegell played an errorless game at No. 20, muffing nothing batted his way.

General Garvey was heard to remark, "Why is a cabaret?"

The Enclopaedia Britannica says that Vodka is the Russian National drink. Speaking editorially—thank God, we're not a Russian!

Col. W. H. Adkins had to leave in order to catch an early train. It wa'n't interestin' fo' a true Southe'n gentleman, there wa'n't no mint, suh!

Notes of the Trail

Promptly at 9:30 Grand Marshal Ketcham mounted 'is curvetting Mitchell for the purpose of leading the flock of

The way the Mimic Gardner Hubbard looked to the Cartoonist.



autos, with their more or less precious freight, over the trail. His mount became unmanageable at Jackson Boulevard and, running away, nearly pried the parade. Frank managed to get control and horn into the line again after making a detour of several blocks.

The Western Electric band boys blew brilliantly while luncheon was being served at Hawthorne and at the ball game later.

That bobbin room—or whatever it was—would have been no place for some Pioneers Sunday morning.

It would have been hard to "buck the center" of that line-up for the big picture.

Bradshaw pitched some ball for Chicago Tel. He blew up in the tenth, largely on account of the Polo Grounds brand of rooting put up by the Thayer-Kingsbury-Salt party. Hughey Jennings would sound like a country churchyard in comparison!

The Hawthorne Ball Game

The Western Electric and Chicago Telephone Company teams outdid themselves in their efforts to put up a creditable and interesting exhibition for the benefit of the telephone Pioneers. The score showed

only one error on each side, although the day was rather chilly for mid-season ball. Bradshaw and Richter were both in



The Porter and the Apple Woman in a Fore-runner of the Tango.

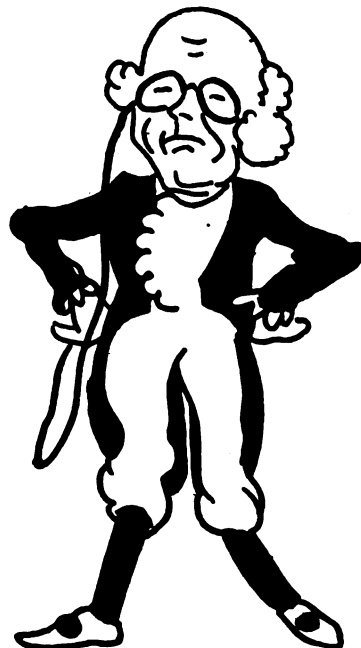
splendid form and the support was all that could be asked. The score:

WESTERN ELECTRIC COMPANY.						
	R.	H.	P.	A.	E.	
McCann, lf.	1	2	1	0	0	
Naperstek, c.	0	1	12	3	0	
Rebor, lb.	0	1	14	0	0	
Hora, ss.	1	2	0	0	0	
Froelich, cf.	1	1	1	0	0	
Schreiner, 3b.	0	0	0	1	0	
Hauks, rf.	0	0	1	6	1	
McDermott, 2b.	0	0	0	4	0	
Richter, p.	0	0	0	0	0	
	3	7	30	14	1	

CHICAGO TELEPHONE COMPANY.						
	R.	H.	P.	A.	E.	
Schuler, 3b.	0	1	1	3	0	
Delaney, c.	0	0	11	1	0	
B. Meinke, lb.	0	1	12	0	0	
Shannon, cf.	0	1	2	0	0	
E. Meinke, 2b.	0	0	1	1	0	
Wallace, rf.	2	1	1	0	0	
Margraff, ss.	1	1	0	0	1	
Savage, lf.	0	0	0	0	0	
Bradshaw, p.	0	2	0	5	0	
Kinsley, lf.	0	0	2	0	0	
	3	7	30	10	1	

Innings—
Western Electric Co. 0 0 0 0 0 0 1 2 0—3
Chicago Tel. Co. 0 2 0 0 0 0 0 1 0—3

Stolen bases—McCann, (2), Wallace, Margraff, Bradshaw.



J. C. Weisert in the Costume of Two Centuries Hence—Act II.

Two-base hits—Rebor, Schuler, Wallace, Bradshaw.

Sacrifice hits—Schriener, Schuler, Kinsley. Innings pitched—By Bradshaw, 10; by Richter, 10.

Struck out—By Bradshaw, 12; by Richter, 11.

Bases on balls—Off Bradshaw, 2; off Richter, 4.

Hit by pitcher—Rebor.

Time—Two hours.

Umpire—O'Brien.

Mr. Vail Entertained.

President B. E. Sunny of the Chicago Telephone Company, gave a luncheon on Friday, during the Pioneers' Convention, at the Chicago Club in honor of President Theodore N. Vail. In addition to the guest of honor there were present Messrs. U. N. Bethell, N. C. Kingsbury, H. B. Thayer, Frank H. Bethell, T. B. Lockwood and Angus Hibbard, of New York; N. W. Harris, John J. Mitchell, W. H. Miner, W. P. Sidley, Alonzo Burt, L. G. Richardson, H. F. Hill, B. S. Gar-



The Messenger Boy. Like the Poet, he is "born not made," and you can't unmake him.

vey, W. R. Abbott, Thomas P. Cook and Clifford Arrick of Chicago; Arthur von Schlegell of Detroit; E. A. Reed of Columbus; H. O. Seymour of Milwaukee, and L. N. Whitney, of Indianapolis.

Good Men Struggling With Adversity.

D. E. Eunny, president of the Central Union Telephone Company, and Alonzo Burke, vice president, spent a few hours in Springfield this morning inspecting the plant here. Both expressed themselves as being well pleased. They arrived early in the morning from Decatur and left about noon for Peoria, continuing their inspection trip through central Illinois.—From a Springfield, Ill., newspaper.

B. E. Sunny, president, and Alonzo Bush, vice-president of the Central Union Telephone Company, spent several hours in the city today looking over the property of the local interests.

The two Chicago men are making a tour of the country looking over their property. They came from Decatur and went to Peoria.—From another Springfield newspaper.

"The growth of business is reflected in the demand for telephone service," said General Inspector B. E. Sunnya, "and we notice especially a great demand for long distance communication facilities. The company has spent \$5,000,000 in new apparatus and in generally improving the service in the state in the last twelve months."—From a Milwaukee, Wis., newspaper.

"The knowledge of thyself will preserve thee from vanity."

Address of Welcome

Delivered by B. E. Sunny, President of the Chicago Telephone Company, to Telephone Pioneers, October 17, 1913.

Mr. President, Fellow Members of the Telephone Pioneers' Association and Guests: On behalf of a host of your old friends and associates in this city, I extend to you a cordial and a sincere welcome.

It was a gracious thing to have given Chicago this convention and we appreciate the compliment and the privilege of entertaining you as long as you can remain. To those who cannot stay permanently, we hope that in their going they will take with them pleasant and abiding recollections of the occasion.

We have no lack of confidence in the program arranged for your entertainment but we realize that all that can be devised in that respect will merely supplement the supreme satisfaction and enjoyment of the reunion of men from a wide area, steadfast and loyal friends for many years who, in the exercise of a remarkable coöperation and industry, have built the world's greatest utility.

In the reunion the occasion is complete. Little can be added and nothing can be taken away. If we can add a little we shall be grateful.

It is difficult to realize today, when we have standards that have been universally adopted, and the problems of practical telephony have been so largely solved, that at the beginning, in 1876, when the telephone was handed us to put into the service of the public, there were no telephone men and there was no one who had anything more than a vague notion as to how the business could be started, or indeed the extent to which the public would use the telephone.

The men who were drawn into the new field came from every line of commerce and the professions—from the mail service, the telegraph, the railways, from the banks and mercantile houses, and there were lawyers, physicians, brokers, real estate dealers and, indeed, representatives from every kind of business.

The first ideas and appliances for the development of the telephone business were borrowed from the telegraph, but that service was quickly drained of all that it could contribute, and from there on the pioneers had to rely upon their own resources.

In each licensee company the appliances and methods of construction and the business policy bore the stamp of the personality of the ruling official, influenced somewhat perhaps by what was being done elsewhere, to the extent that it was known, and further influenced by the traditions of the business in which the official was last engaged, so that in some respects there were as many different plans and devices as there were companies.

There was so much to be done and so little to do with that almost everyone tried his hand at inventing, and a lack of prior mechanical or electrical experience for such a task, which was the rule rather than the exception, proved no bar.

The strength and vitality of Bell's invention were established when it did not succumb to the early inventions of switchboards and other devices, some of them fearfully and wonderfully made, although it must in justice be said that out of the variety of ideas included in the different types of switchboards came the standard



B. E. SUNNY, 1879.

multiple board which was generally adopted.

In 1880 the National Telephone Association, made up of the representatives of the licensee companies, met for the first time, and the discussion at this and succeeding conventions covered all of the problems which beset the new business. The work of the association was of the greatest value, and perhaps did more than any single agency in encouraging the development of the proper standards.

An extract from the address of President Tyler of the association, in 1885, on the state of the art from 1880 to 1885, is full of interest:

I remember very well when we came together in 1880, all strangers to one another.

For my part, I don't think there were three men in the company that I had ever seen before except the American Bell Telephone Company's agents. We were all in a state of enthusiastic uncertainty. I don't believe that there was a single company there represented which could say, putting its hands upon the figures—"We are making a cent." And what is more, I don't believe that there was a single company represented there that could say definitely with its hands upon its books, "We expect to make a cent," in a definite, distinct way. It was for that very reason—from the very fact of the indefiniteness of our enthusiasm—one of the most remarkable gatherings I ever attended. We were all full of hope and yet, when we analyzed our hopes, they were very airy indeed.

When we came together, however, in the spring of 1881, we were in altogether a different condition. Things had begun to crystallize. The difficulties from the opposition of the Western Union and Drawbaugh companies had been all substantially swept out of the way. We had not reached that point where we felt like "swelling" out in fine clothes and high living on our profits. But in the years 1881-1882, I think, we saw the most self-contented men gathered together in the American Telephone Convention that had ever been brought together in one room. We had all of us made money. We all of us saw an indefinite expansion of the business before us, and we didn't know when the end could be. It was going to be a long way off. In 1883, when we met in Boston, we were not so enthusiastic. All of you remember that when we met in 1884, in Philadelphia, we were "blue."


We have been through the period of eager expectancy in the beginning; we have been through the flush of first and almost unexpected success, and we have reached now the period of steady, unrelenting work, of constant anxiety, of careful forecastings, not only of tomorrow, but of next year; and we have reached the position in our business of maturity, where we are threatened with all of the dangers of an established business, and we are burdened with all of the responsibilities of very large interests to care for.

I have said there was no adequate conception, at the beginning, of the demand by the public for the telephone, nor was there proper realization by the public of the utility of the invention. I can add that even ten years later this condition was but slightly changed.

Mr. Tyler refers to the business in 1886 as having reached its maturity, and he was recognized as one of the ablest of the leaders. There were then 150,000 telephones in the United States, while the number is now above ten million.

A year later, in 1887, the then president of the association said:

We have managed to put in use, say, 160,000 sets of telephones; that is, we have reached one-fourth of one per cent. of the population of the country. (In our wildest



CHICAGO, 1913

I WILL Everything ATTEND THEATRE PARTY, OCTOBER 17

I WILL Everything TAKE PART IN TRIP TO TELEPHONE BUILDING AND WESTERN ELECTRIC COMPANY, OCTOBER 18.

I WILL Everything ATTEND BANQUET, EVENING OF OCTOBER 18.

I AM ACCOMPANIED BY _____
(MEMBER OF FAMILY) WHO WILL ALSO ATTEND

NAME Theresa Vail

ADDRESS _____

NOTE LADIES ACCOMPANYING PIONEERS, WHO ARE LOCATED OUTSIDE OF CHICAGO ARE INVITED TO ATTEND ALL MEETINGS AND ENTERTAINMENTS

MEMBERS ARE REQUESTED TO FILL OUT THIS FORM AT ONCE AND DELIVER TO THE SECRETARY

MR. VAIL'S "I WILL" CARD.

dreams we cannot hope to reach more than one-half of one per cent.)

We have now reached beyond eleven per cent! The proceedings do not show that there was any difference of opinion among the members as to the business having reached its maturity or that the development would not exceed one-half of one per cent. of the population.

Therefore, we will assume our share of the error in forecasting, and not to be caught again, we will now say that the maturity of the business is not yet in sight, and that the percentage of telephones to the population will be at least 100.

In 1887 Thomas D. Lockwood then, as now, our "guide, philosopher and friend," while not expressing himself as to

er sufficient only to know the right way. What possible avail can it be if the right thing is not done in the right way, by the right man and at the right time?

"If ye know these things, happy are ye if ye do them."

Due to the energy and industry of the engineers and plant men, problems of the kind referred to by Mr. Lockwood have been solved, but as we are talking of pioneer days we may refer to them as milestones on the way to what we now have, the triumphs of the inventor and engineer—the multiple board, the loading coils, copper metallic circuits, phantom circuits, common battery, and a uniform service from one end of the land to the other. Wherever you go it is the same telephone; you get service in the same way, and the same kind of service. Not

It was the greatest good fortune that the telephone from the beginning was in the hands of men whose confidence in its utility never faltered and who had the courage and patience to meet and overcome every difficulty. Furthermore, it was the greatest good fortune that these men, strangers to each other in the earlier years, differing in their views and policies with reference to practical questions of service, were alike in the enforcement of the highest business ideals in the conduct of the business at all times and under all conditions. As a result, no industry enjoys the confidence of the public to a greater degree.

The telephone, fortunate in its men, is doubly fortunate in its women. As the



BANQUET TO TELEPHONE PIONEERS OF AMERICA, CONGRESS HOTEL, CHICAGO, OCTOBER 18TH.

whether the business had reached its growth in the number of telephones, made it clear that we had not reached perfection in the matter of plant conditions, and said:

Looking back upon the entire field, we cannot fail to see that, though sometimes it has not been easy to observe the progress from day to day, progress has certainly been made; for we are far ahead now of the point where we were either ten or five years ago. We have, however, to make further advance. It is not enough to know that small wire is not conductive either to stability or to good operation; it is not sufficient to know that the porcelain knob is not an insulator; it is not enough to realize that each company ought periodically to test its lines with the galvanometer, and to test for trouble with the same instrument in the hands of a competent electrician. It is not sufficient to know that competent electricians require more than sixty dollars a month; that every part of your plant ought to be periodically inspected; that in your business the best supplies are always the cheapest. It is nev-

only are the machinery and methods alike, but so far as one can tell it is the same identical operator—whether you are in Boston or San Francisco; at least it sounds like the same voice.

The achievement represented in the telephone system of today is a tribute to the adaptability of the American business man to unusual demands upon his energy and resources.

The telephone as an instrument is simple in its construction and operation, but the problems involved in the creation of a telephone system to utilize this simple instrument were overwhelmingly difficult. Indeed it can be well said the development and application of a comprehensive method of supplying a universal service was an achievement scarcely less important and valuable than the invention itself.

medium of the larger relations between the telephone company and the public, they have discharged their responsible duties faithfully and with a dignity and graciousness that have won the respect, if not the affection, of the telephone using public. Alert, cheerful, patient and unflagging in her attention to duty, the telephone operator is in a class by herself, the result of her own splendid industry.

So that while the new problems and perplexities which crowd in from day to day prove that the telephone millenium is not yet in sight, we are grateful for all that the pioneers have done for us, and we are grateful, too, for the results that the thousands of loyal and faithful employees are securing every day.

In the service of the public we are in the forward rank, and we step with confidence.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst



CHICAGO OPERATORS IN SECOND ACT OF "TELEPHONERY," PERFORMED DURING PIONEERS' CONVENTION.

The Unseen Force

Our Operators

Girls of the switchboard, do you know that you were the center of interest in the Pioneer gathering at Chicago?

You say you were not there? You *were* there in a most real sense, for though you were not there in person, you certainly were recognized and brought to the front with such enthusiastic appreciation, that we want you to know about it.

In the addresses, in the play and in the general conversation, you were spoken of and represented as the unseen force which has made and is making the telephone service the greatest convenience of the age.

The twenty-six girls whose faces you see on this page, were your representatives and well they acted your part in the clever play; but when the great audience enthusiastically cheered their spirited acting, it was not alone the thirty girls they cheered—it was the thousands of girls they played for, the girls who at that very moment were actually giving the service at switchboards all over the country.

In the first part of the bright comedy, the telephone girl solved the vexing problem of making the wonderful invention practical and successful. It was she who was cleverly represented as bringing order out of chaos; her deft fingers and her sweet voice and courte-

ous tones transforming the pandemonium of the early operating to the orderly quiet of the modern Exchange. There was plenty of entertaining exaggeration and delightful fun with quaint costumes of thirty-seven years ago, and songs and dances gave color and life to the amusing farce. But there was a strong undercurrent of real sentiment in those scenes of early days when the new invention was struggling for recognition, and these scenes brought more clearly to mind what the telephone owes to girls and also what an opportunity it has given to them.

And not only did you telephone girls play this prominent part in the first act, but in the jolly extravaganza of "The Future" it was the wonderful climax, after all the wierd and fantastic scenes of 200 years hence, to see at last the faces of girl operators emerging from the dark background. The twinkling lights, which flashing showed them sitting there, ready for service, were like the signal lights they sit before every day, and as one hails the return to consciousness after a bad dream, so the audience hailed the telephone girls of today with tremendous applause.

But here, again, it was you, not the few girls representing you, whom the audience cheered. To many there came a vivid realization of what we owe to that great company of faithful girls "sitting in the shadows keeping watch," the great unseen force, who serve both day and night.

Women Pioneers at the Chicago Convention

At the third convention of the Pioneers the attendance of the ladies was large and at all of the meetings and festivities of the occasion they were present as most interested and interesting participants.

Probably no more democratic organization exists than this Club, made up of Telephone Pioneers. In it are not only the inventors and the promoters, the officials and the financiers but the men and women who have served in any capacity in these last twenty-one years, meet in this club with equal rights and equal enthusiasm.

The pioneer in any work could hardly advance without the women who have always been their efficient co-laborers. She has always had, whether she claimed it or not, the right to work alongside the men and though her contribution to the telephone development has not taken the form of invention, she has developed the service by her quick wit and steady application.

It would be impossible at this time to give many details in regard to the women pioneers who attended the Chicago meeting. Thirty-two at least were present. Of these, five were from New York City, four from Buffalo, two from Jersey City, two from Albany, two from Detroit, two from St. Louis, one from Woodbridge, N. J., one from Omaha, one from Denver, one from Harvard, Ill., and ten from Chicago.

To Kathryn M. Schmitt of New York belongs the honor of being the principal of the first telephone school in the United States. Miss Schmitt has the experience of an operator and by her intelligent observation and loyal application of her natural ability she has developed a splendid school of telephony by which the New York offices are so well supplied with operators.

Mrs. Catherine Moore, principal of the Chicago School, is a good second, having started the Chicago Telephone School soon after the New York School was organized. During these years the school under Mrs. Moore's direction has become one of the best schools in the country. Mrs. Moore has introduced some unique features in the school in Chicago, such

M. Clark and Arthur D. Wheeler. She has organized the mailing department for the Chicago Telephone Company and the Central Union Company, and in 1911 the filing system of the Secretary's office when the Central group was formed. Helen Masterson, her sister, is also a pioneer and was present at the convention.

Anna B. Raymond has the distinction of having been in the legal department or president's offices during her entire services. In 1888 she entered the service of the Central Union Telephone Company under A. A. Thomas, who was then general solicitor. In 1896 Mr. Thomas having resigned, L. G. Richardson was his successor and since that time Miss Raymond has continued as his clerk both in

highly by the Chicago Company. Mr. Hyatt's assistance in the electrical features of the play Friday evening added much to the splendid staging of the farce, especially in the spectacular scenes of the second act.

The following five chief operators of the Chicago Company are members of the Pioneers' Association, and were present at the convention: Harriet M. Binmore, Toll chief operator; Catharine C. Quinn, Monroe chief operator; Elizabeth A. Hamilton, Oakland chief operator; Cora B. Evick, Douglas chief operator; Mrs. Mary Regan, Main chief operator.

Among chief operators from the east who attended the convention were: Miss M. Simmons, New York; Miss A. Green-



CHICAGO OPERATORS IN COSTUME OF 1878 IN FIRST ACT OF "TELEPHONERY."

as the multiple chart drill, lectures on hygiene, vocal culture, gymnastics and concentration practice.

Among the women pioneers present were several principals of schools: Francis Overbeck of the St. Louis School, Mary J. Gannon of Buffalo, and Mrs. Davenport of the Newark Division, New Jersey. All of these ladies spent several days in Chicago after the convention closed visiting the training school and operating rooms.

Miss C. A. Wallace, formerly principal of the Brooklyn School, but now engaged on the Rules Committee, was also present and remained a few days to observe the Chicago work.

Anna Masterson, chief clerk to the Treasurer at Chicago, is a pioneer who has the distinction of having made her telephone connections in 1883 when as an operator she was for nearly two years in the Exchange's "9 Office" and "2 Office" and was advanced from operating to the general offices and has the record of being private secretary to four presidents,

Henry B. Stone, Robert T. Lincoln, John Indianapolis while he was president for nine years of the Central Union and since Mr. Richardson came to Chicago in 1911 as General Counsel of the Central Group.

Another of the pioneers present was Sue Hoffman, who has been with the Company since March, 1884. She has occupied the position of traffic chief in Cairo, Ill., but is now traveling chief operator for the Southwestern Bell Company.

Mrs. Margaret Hyatt, supervisor of traffic in Chicago, was another pioneer at the convention. Mrs. Hyatt is well known in telephone circles, having traveled much during her connection with the Telephone Company with which she has been identified since she entered it as an operator in Chicago. Her steady advance from operator to manager of one of the largest exchanges in the world and to the position of supervisor of traffic has made her the subject of articles on the successful business women which have had a

large circulation in the daily papers. Both Mr. and Mrs. Hyatt are valued slade, Bayonne, N. J.; L. M. Davenport, Jersey City, N. J.; F. L. Carricross, Albany, N. Y.; K. M. Schmitt, New York; K. B. Pettit, New York; M. M. Walker, New York; C. A. Wallace, New York; J. S. Mott, New York; R. Sullivan.

Detroit was represented by Estelle McGraw and Margaret Wood. Miss McGraw has been in charge of the compilation of the Detroit directory since 1897. She started as an operator twenty-five years ago. Miss Woods is district traffic chief. Her record dates back to 1887.

Other Pioneer ladies present who registered were: Rosalind R. Cheney, Catherine G. Collins and Mary C. Wait, of Buffalo; Rose Scullin, of Albany; Dora E. Ulrich, Mamie Delvin, of New York; Mrs. Olive McClelland, of St. Louis; Mrs. A. V. Freeman, Woodbridge, N. J.; Mrs. Charles E. Hall, Omaha; Mrs. R. D. Hall, Denver; Augusta Allendorf, Harvard, Ill.

Some Pre-Historic Telephone Exchanges

Address by Thomas D. Lockwood before the Telephone Pioneers,
October 17, 1913.

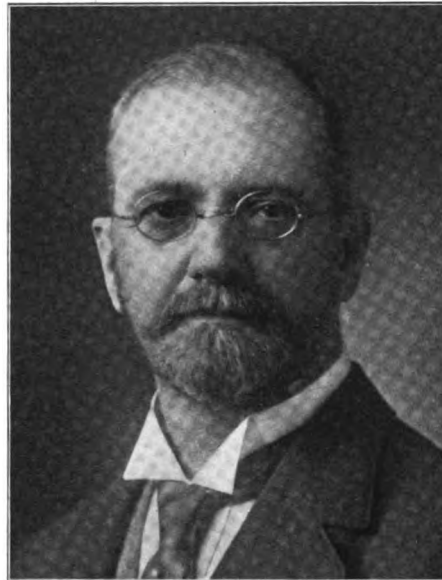
Ladies and Gentlemen: I was in Omaha once, and although it was not altogether in accordance with the custom of the city, I attended church on Sunday. The minister gave out for his text: "I send you forth as sheep amongst the wolves," and he assured the audience that they were the sheep. He repeated it over and over and over again. He says: "My brethren, you are the sheep," and then he propounded this conundrum, "But who are the wolves?" And he repeated it over again, "Who are the wolves?" And a gentleman, evidently, by his attire lately from the ranches and from the prairies, got up and said, "Well, rather than have the play stop I will be the wolves," and I will.

The eloquent address of our friend, Mr. Sunny, which was received with great pleasure and delight, reminded me of many of the old times—the times before the American Telephone & Telegraph Company was heard of, before the American Bell Telephone Company was heard of, the time when the National Bell Telephone Company, was indeed, what the American Telephone & Telegraph Company has never been—the parent company.

We had one room, Mr. Vail sat in one corner, Mr. Maiden in another, Mr. Watson—who I am delighted is with us today and whom we shall have the pleasure of hearing this afternoon—in another, and I was in the fourth. It was a sort of puss-in-the-corner game with nobody in it. But we had one very great pleasure in those days—there was not a day, one day, but that there was some one working out in the field or aspiring to work out in the field, who came to us there; and, as Mr. Sunny quoted from Mr. Tyler's address:

"A more beautifully optimistic crowd you could never imagine."

There were fortunes in the business, which, I grieve to say, few of us have ever realized, but there was no end of hope—it sprang eternal in the telephonic breast, I tell you in those times. I presume this afternoon a very pioneering pioneer, Mr. Doolittle, will have something to say about those early days, and, while not trespassing upon what he is going to say, I would like to say something of the time even before that which he will tell you about—before the telephone was ever heard of, and I might here incidentally say that I was much interested last week in finding out from the *New York Sun* that the telephone was invented by two Americans, one by the name of Graham and the other by the name of Bell, and with the exception that the inventors were not Americans and were not two, and that they did not have two names, this item was exactly correct; but before the telephone came, and before there was any thought of the telephone exchange, and while we have been hearing very much and none too much about the wonderful invention of the telephone, we do not hear so much about the wonderful following up after-piece and the production of the telephone exchange; and it is an absolute truth that while the telephone rendered the telephone exchange possible, it is



THOMAS D. LOCKWOOD, 1878.

the telephone exchange which has rendered the telephone useful.

But there were exchanges before the telephone. As long ago as 1852, a Frenchman who was so unfortunate as to be fifty years ahead of his time, which is just as bad as being two or three years after, took out a French patent, and he proposed to do everything there was, until the telephone exchange was afterwards worked up; but he didn't have telephones, of course; but he had dial telephonic instruments, he had a switchboard, he had means of calling in and means of calling out.

The Stock Telegraph Company in New York had a means of telegraphic exchange and it ran between all the banks and into the clearing house, where any two of those banks could be united for conversation, I was going to say, but for talk; and the only trouble about that was that occasionally—you see they had to have an operator on each line, and occasionally the operator would reverse, and nothing could be done, and the subscriber to that exchange could be equally expressive in expressing his pleasure as the subscriber now is.

After that there was a Philadelphia legal telegraph company run by a man whose name was Bentley, and he got up a system in which Morse instruments were used as a telephone exchange; it was supposed to connect different lawyers' offices with the court house, and it used dials and it had a peculiarly depraved system of calls. It afterwards made itself manifest in St. Louis, Philadelphia and other large cities; namely, having a call wire, and a person who desired communication with any other person could call in to the call wire, which they did themselves by a Morse sounder and key. The average telephone subscriber has not found out it is just as easy to "call off" as it is to "call on," and if he would say to the operator, "I want 340 Main," and he had his connec-

tion duly made, and some other fellow wanted 433 Main, and 433 is busy and he would cut out for about a second, and he would call out and say: "433 off," and then he would get his call.

Now, after the coming of the telephone there were pre-historic telephone exchanges, just as I suppose there were pre-historic animals, and the one that shines out in my memory more particularly than any other, because it turned out to be a most utilitarian one in its work, was a little one at Hartford, Connecticut, where there was a druggist, Isaac D. Smith, by name, who ran a drug store, and where the capital to have a drug store was a sort of accomplice before the fact of nearly all doctors of Hartford, and he became an agent for the Bell Telephone Company when Mr. Fred Gower was the general agent. Smith, who I might say, died later by taking a too strong dose of his own medicated prunes, had Bell telephone lines out to the residences and offices of a dozen of the Hartford doctors, and this was before the days of motor cars and each doctor had his horse and buggy which was always kept in the livery stable.

The doctors proposed to Mr. Smith to run their own lines to the livery stable, and they assured him so, anyhow. So, instead of having time to compound his prescriptions, he thought it was folly to use up his time in taking the messages from the doctors and passing them to the livery stable whenever they wanted their conveyances, and so he rigged up switchboards himself—of which I have a form in my office, without thinking that he had done a great thing at all. He used to work those switches in such a way as to connect any one of these doctors with any one of these livery stables. Not being anxious for a civil war, of course, he took care not to connect any doctor's line with any other doctor. But by and by there came a time which proved the value of his efforts, the telephone was capable of an entirely new and beneficial function. I was a railroad man—not then, but shortly before—and I used to work on a little railroad that ran between Millertown, New York, and Hartford—it is now a part of the New Haven system. There had been a meeting at Hartford and the road was carrying the people home, and the train ran off the track at a place called Tarryville, and there was a dreadful disaster to a number of persons and a great many more injured; and somebody ran to the nearest telegraph station, which I think was Tarryville, and telegraphed home into the Atlantic and Pacific telegraph office; the operator there was advised to try the drug store, and he rushed in and raised Mr. Smith, and Mr. Smith telephoned to all of his doctors and telephoned to the hospitals, and telephoned the railroad there to get a special train, and the result was that in an hour and a half after the disaster there was a special train on the way with all the doctors in Hartford with every necessary article for the relief of the sufferers, and that was the first great achievement of the telephone exchange, and I thought fit to relate it on this occasion, being as I said, "the wolves."

Appreciation

Dear Old Lady (using call office telephone for the first time, to operator at the exchange)—And as you've been so nice and attentive, my dear, I'm putting an extra penny in the box for yourself.—*Punch*.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
 A. BURT, *Vice President*
 W. I. MIZNER, *Secretary*
 C. E. MOSLEY, *Treasurer*
 L. G. RICHARDSON, *General Counsel*
 B. S. GARVEY, *General Auditor*
 J. G. WRAY, *Chief Engineer*
 CLIFFORD ARICK, *Manager Publicity Department*

H. F. HILL, *General Manager*,
 Chicago, Ill.
 E. A. REED, *General Manager*,
 Columbus, Ohio
 H. O. SEYMOUR, *General Manager*,
 Milwaukee, Wis.
 L. N. WHITNEY, *General Manager*,
 Indianapolis, Ind.
 A. VON SCHLEGEL, *General Manager*,
 Detroit, Mich.
 H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, *Editor*

BELL TELEPHONE BUILDING CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

NOVEMBER, 1913.

The Telephone Pioneers

To say that the visit of the Telephone Pioneers to Chicago was an inspiration would be but to repeat a platitude made such by its frequent use in Boston and New York on the occasion of former conventions. Yet, this is literally the truth and is the strongest impression left by the visit of these men who met and overcame the obstacles which presented themselves at the beginning of the movement for universal telephone service. As one of the papers read at the convention expressed it, men of less fortitude would have failed against the terrific odds.

What does it mean to be a Telephone Pioneer—a member of this society? It means that the member has made good as a telephone man. It means that in some branch or branches of the great work in which we are engaged this man has so deserved and secured the confidence of the telephone organization that he has retained and filled positions of trust for twenty-one years.

The Telephone Pioneers are the men who have achieved. Their tenure of service is itself the proof of their success. The ranks of the Pioneers hold no idlers, no duffers, no "rolling stones."

Chicago Pioneers and other telephone people who are not Pioneers but hope to be, united in welcoming and entertaining the visitors and we think the descriptions of events and things in this issue will show that they succeeded. It is but stating the case poorly to say that every man and woman in the telephone organization who was permitted to share in the pleasing task of entertainment thoroughly appreciated that privilege.

Coming conventions probably will be held in other cities, which is doubtless as it should be. But Chicago Pioneers and prospective Pioneers are ready at all times to welcome the visitors back again. If there is at any time any disagreement as to the proper place for a convention, let them compromise on Chicago.

The Pioneers' "Show"

That history repeats itself is a truism tested by time and not open to dispute. But when has history ever repeated itself before the eyes of the actors who made that history in the original?

Bizarre as it may sound, this is what happened when the play "Telephony" was produced for the Telephone Pioneers. In the mimic telephone exchange the Pioneers beheld THOMAS B. DOOLITTLE, HENRY W. POPE, THOMAS A. WATSON and THOMAS D. LOCKWOOD arrayed in their quaint "working clothes" of thirty-five years ago. In the audience quietly smiling and enjoying the little satire to the fullest sat the real DOOLITTLE, POPE, WATSON and LOCKWOOD. And, by the employment of a slight but perfectly allowable anachronism, ROBERT CLINE and J. J. O'CONNELL also beheld themselves set back into telephone history and placed in the cast as "BOB" CLINE and "JOEY" O'CONNELL, nicknames which doubtless would have been highly suitable at that time.

These men sat and watched a lifelike though droll and whimsical portrayal of their early efforts to plant in firm ground the foundations of universal telephone service. A corner-stone in that structure was laid when the shouting boy operator was relegated to obsolescence and replaced by the soft-voiced, patient telephone girl. Disguised in many a piquant dress, this little moral peeped from the play.

At the risk of being called the death's head at the feast, we venture to suggest another serious thought in connection with the wholly admirable and almost wholly humorous performance. The two acts introduced scenes showing the past and future of the art of communication—the present being too obvious, we presume, to require treatment. The second act is pure imagination and right here is the sad part. The sober truth is that any attempt to tell what the future holds for the art of communication is pure imagination and the scene in A. D. 2113, so cleverly worked out, is as liable to be a true representation of the future as anything else that might be imagined.

For we do not know what time will bring forth. As the old Gilliland, Williams and Berliner apparatus of a generation ago is now hopelessly obsolete—although good for its age—so the present magnificent switchboards must inevitably yield in time to come to something better. This will not be a sudden change but a gradual evolution, the good slowly giving place to the best and that best against passing downward through the gradations of good, fair, poor and worthless. It is the ever-recurring tragedy of telephony, turned for an hour into comedy, but going on endlessly even while the actors in the little play trod the boards.

The Convention Papers

In addition to the exhaustive accounts of the various interesting features of the recent Pioneers' meeting, this edition of the BELL TELEPHONE NEWS is of especial value by reason of the publication, complete, of all the addresses delivered at the convention. Of the men who made these addresses nothing in the way of introduction need be said. The names of WATSON, DOOLITTLE and LOCKWOOD are inseparably identified in the minds of telephone people and the public with the earliest times of the telephone and no better authority on the history of the early days of telephony could be found than the testimony of these men. Mr. KINGSBURY, who voiced his regret that he had no personal part in the earliest development of telephony, has been in intimate contact with later events and the development of later policies at their source, and his expressions regarding the present policies of the Bell System in its public relations and with its patrons and competitors furnish food for thought on these important topics.

Mr. WATSON carried his hearers back to a day before the telephone existed. For days and months he worked side by side with ALEXANDER GRAHAM BELL and shared the trials and triumphs of the young inventor. He tells this story with full detail and circumstance, and his narrative is almost a historical romance. "Tom DOOLITTLE, as he is affectionately called, tells something of the early attempts to devise switchboards and adds a modest account of his success in producing hard-drawn copper wire, without which the present-day long-distance telephone system probably could not have been developed. THOMAS D. LOCKWOOD, whose contributions, both prepared and impromptu, were the life of the convention, gives a humorous account of some of his early experiences.

These men, and many of those who sat in the convention and listened and applauded, were makers of early telephone history. The papers read and those prepared for similar meetings will be the original sources from which writers of the history of electrical development in later times will draw their facts and inspiration. These papers, therefore, are not mere columns of type. They are chapters in the Golden Book of the telephone and should be read and preserved for future reading and study by every telephone man and woman.

In a recent interview with ALEXANDER GRAHAM BELL, the inventor of the telephone delivered a little piece of advice in the following crisp sentences: "Concentrate all your thoughts upon the work in hand. The sun's rays do not burn until brought to a focus."

A Philadelphia subscriber sent a check for her telephone rental and enclosed an invitation to her daughter's wedding.

Here is one spot, at least, where Bell telephone service must be thoroughly approved and appreciated.

Another entirely legitimate ambition is now open to the worker. He may aspire to earn a salary which will give him the privilege of paying the income tax.

Telephone Problems of the Present and the Future

By N. C. Kingsbury, Vice President of the American Telephone and Telegraph Company—Address Delivered before the Telephone Pioneers, October 17, 1913.

Ye who listed with credulity to the whispers of fancy, and pursue with eagerness the phantoms of hope; who expect that age will perform the promises of youth, and that the deficiencies of the present day will be supplied by the morrow, attend to the history of the telephone business and at the same time to the personal history of the body of men who make up the membership of the Telephone Pioneers of America.

I have thus paraphrased the opening sentence of Samuel Johnson's "Rasselas," as it seems to me in a few words to sum up the past history, the fruition of the past hopes, and the expectations of the present. What seemed at first "whispers of fancy," by reason of your skillful touch and patient endeavor have developed beyond "phantoms of hope" and the telephone business has arrived at an age where the "performances of youth" and "the deficiencies" of the past are being supplied in great measure.

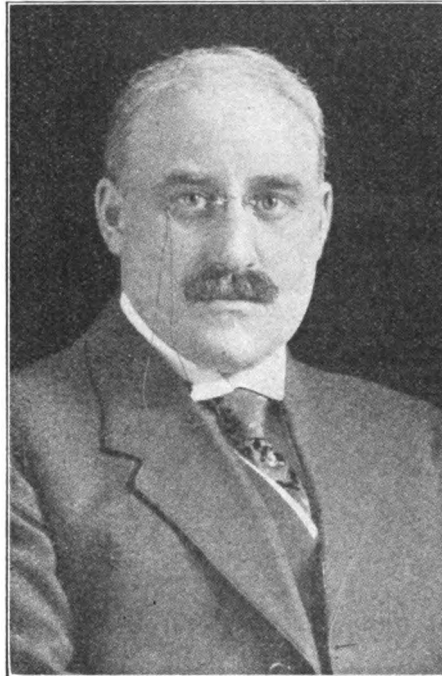
It would be presumptuous for me to deal with the past of the telephone business. The achievements of that period are apparent to me, indeed, in everything that I have to do with in the business; they come to me as traditions and as facts related by others. But I have not, I regret to say, that intimate personal knowledge of the past which so many of you before me possess, and therefore, instead of addressing you on some subject connected with the glorious past, I am going to attempt to tell you of some of the problems and the hopes and expectations of the present and the future. The problems are numerous, complex and important, the hopes are country-wide in extent, and well founded upon the past achievements and present ability of those who cherish them.

One of the most important and vital problems of the telephone or any other business is the securing of money to be used in purchasing and building the permanent equipment necessary for conducting the business, or, in a word financing. In the telephone business this problem is a continuing one. In most other lines of business the investment once made requires no additions, or additions comparatively small in amount; but in the telephone business the construction account is never closed, the plant must be constantly enlarged and extended. This requires new capital every day of every year.

It is an old and true saying that capital is timid, but it is also true that, given a legitimate, stable business, with assured earning power, and capital readily seeks investment. The telephone business is perhaps the most stable of any line of business. In good times and in bad times the telephone is continually used, and the increase in the business seems to be only slightly affected by ordinary business conditions; and you will doubtless remember that during the dark days of 1907 when other lines of business either stopped growing or went backward, the telephone business continued to increase in size and importance.

Mr. Vail said soon after assuming the responsibilities of his present office, that given proper net earnings there would

be no difficulty in securing sufficient funds to carry on, to develop and to increase the business, and the experience of the last few years fully proves the truth of his statement. So that after all, the vital factor in financing is the continuance of net earnings on a basis just



N. C. KINGSBURY, 1883.

to the public and at the same time safe and satisfactory to the investor. To do this is an ever present problem and duty.

Ever since Alexander Graham Bell invented the telephone, hundreds of engineers have been busily engaged in study, research and experiment, which have resulted in the invention of many hundred devices which are now used and necessary in the everyday operation of the telephone.

Together with the general science of electricity, the art of telephony has been growing and developing at a tremendous pace, so that an equipment man who might have known all about telephone apparatus five years ago would be greatly puzzled with, to him, strange devices today, and it is probably safe to say that a first-class equipment man of today, were he to leave the business, would find many new intricacies of telephone equipment five years hence.

In spite of the great work in engineering and plant construction which has been done in the past, we might say *because* of the great work which has been done in the past, much remains still to be done. Refinements in service, in themselves create a demand for further refinements. The better the service is, the more complete it is, the more general it is, the more all of such qualities are expected and demanded by our patrons and the public.

Only a few years ago it was a cause of great congratulation and a reason for compliment to the telephone engineers that it was possible to talk from New York to Philadelphia or to Boston. To-day if one cannot secure a good talk from New York to Chicago, it is an occasion for criticism of the telephone company.

The successes of the past call for greater achievements in the future. The engineers and construction men are continually busy with problems of transmission; our underground systems are being extended and the intricate engineering and construction details necessary to make these systems available for commercial use are being worked out as fast as possible.

We have assumed the slogan and the responsibility of universal service. We must see to it, therefore, that Washington is never again cut off from communication with New York, that Boston, Philadelphia and Chicago and all the other great centers shall be at all times in communication with all other centers. It is not sufficient that we talk from New York to Denver, but we must bridge up the gap and extend the talking circuit from the Atlantic to the Pacific; and to accomplish this great result it will have cost more of human effort, of human ingenuity, of human determination, and of money, that it has to mingle the waters of those two oceans. Did you ever stop to consider that dating from the inception of this government's work on the Panama Canal, the Bell system has spent more money in improving and extending its plant than the government has expended in the digging of the canal?

The time is fast coming when we must of necessity plan for such aerial construction as will withstand the usual and to a great extent the unusual attacks of the elements, and our construction people advise me that such a line can be constructed.

The problem of guarding against adverse electrical influences has been with us for a great many years, but is of special importance now when we consider the many systems of heavy current which have been built, are being built and are projected for the future.

I shall not attempt to give you the details of the tremendous problems which must be solved by the engineering and construction forces in the future. I do not know enough about them. But I do know that great things are under way; that the hope of successful accomplishment of many of these things has already been reduced to a practical reality, and that the most secret and hidden forces of nature, forces of which the lay mind knows scarcely the names, are being studied and invoked in order that we may fulfill and exceed the expectations of the past and of the present.

Another great problem of the present and the future is our relations with our patrons and with the public at large.

No problem is fraught with greater difficulties and perplexities, none is more important. In my opinion it is no exaggeration to say that the telephone business, which you have created and

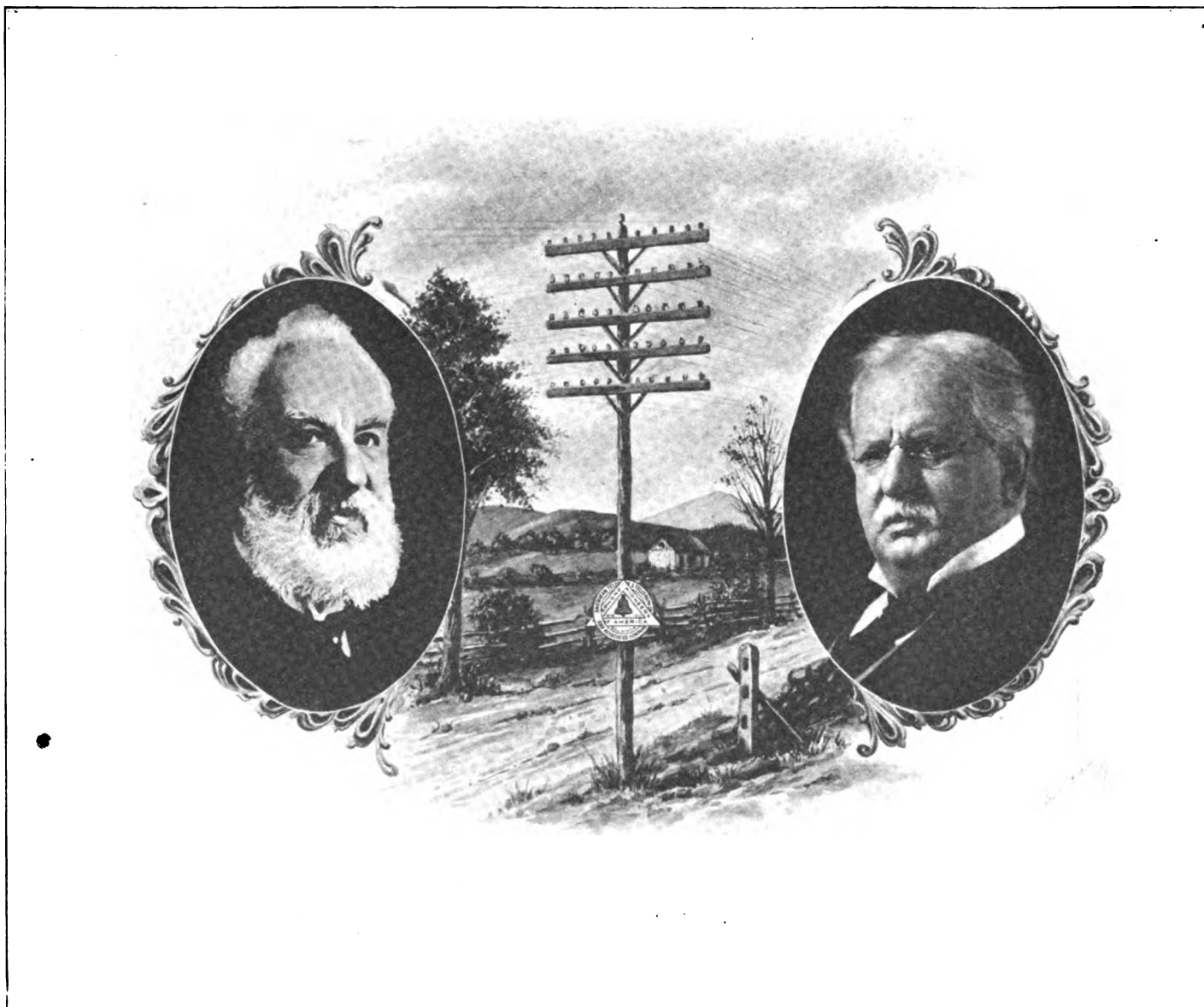
brought to its present state of size and efficiency, will in the future stand or fall, succeed or fail, just in proportion as we can educate, satisfy and please the public.

I use these words—educate, satisfy, please—advisedly. We must educate *first*, before we can satisfy or please. The public knows really very little about our business. It is so complex. In many of the processes, so mysterious; and so separated from the general daily ex-

perience of the individual that any slight deviation from a standard which a man conceives to be a reasonable one brings pronounced dissatisfaction and displeasure. The same man, when made aware of a difficulty, (perhaps absolutely unavoidable) in giving him the usual high grade of service, will nearly always be satisfied, and when the difficulty is removed and service restored will be pleased.

little criticism. But when a frail connection is broken or a relay fails to respond properly, or a cable springs a leak, the public does not know anything about it, and the man whose service is affected often complains bitterly and has a lasting grievance against the telephone company. It is what might be considered as the minor details and difficulties of giving service, which the public should be made to understand as thoroughly as possible.

common with all the other public utilities of the country the telephone business is unpopular with the public. Why is this so? You men of kindly disposition imbued with the ideal of public service, many of you with altruistic motives, have doubtless often pondered on this fact. I do not for a moment believe this unpopularity is deserved. I do not believe the acts and policies of the various public service corporations of the country should leave any such im-



ILLUMINATED PAGE OF BANQUET MENU CARD.

But *how* to educate? That is the important question. When a community suffers a great calamity such as the Dayton flood, and service is interrupted, or, for the time being destroyed, the public knows all about that and there is

And as with service so it is with the other affairs of the company. The *reasons* for doing things should be carefully explained. Sometimes I fear we lose sight of the fact that our business is not a private business. In the very fullest sense of the word it is a public business; and we have the largest public to serve of any business in the country. The public is intimately connected with and vitally interested in everything that we do. It is in a real sense a partner in our business, and as such is entitled to know exactly what is going on and the reasons for a line of action.

Explain it as you will, account for it as you may, the fact remains that in

pression on the public mind, if those acts and policies were thoroughly understood; but I *do* believe that one of the great problems of the present and the future is to clear away this mist of doubt and suspicion with the clear sunlight of the widest possible publicity.

We must in the future more fully than ever in the past take the public into our confidence. It takes a lot of confidence on the part of our patrons to pay bills regularly, month after month, with no knowledge or appreciation of the nature and cost of the service for which they are paying. The measure of value in telephone service is not the pound, the foot, the bushel, not even the num-

ber of messages sent nor the distance traversed by the voice, no—the measure of value is the necessity of the subscriber equated with the cost to the company, and the inherent difficulties of giving dependable service. And these should be made known.

There never was such necessity for relations of mutual confidence, and respect between telephone companies and

that they should have been. Unpleasant relations are the natural outcome of extreme competitive effort, but it seems to me that the time has come when all this should change. Government and state control have modified to a great extent so-called competition, and it is no longer necessary or wise, if indeed it were ever wise, to employ methods which smack strongly of real warfare.

We may have had more enemies in the past than we should have had; we may still have a few left. But the fact is this great system is the enemy of no interest and of no class of men.

We have no divine right to run the telephone business exclusive of anybody else who wishes to engage in that business. I believe, however, that we have some superior rights with respect to the business, because we were pioneers and did the hard discouraging work of the pioneer, because we have developed the field along several lines greatly beyond

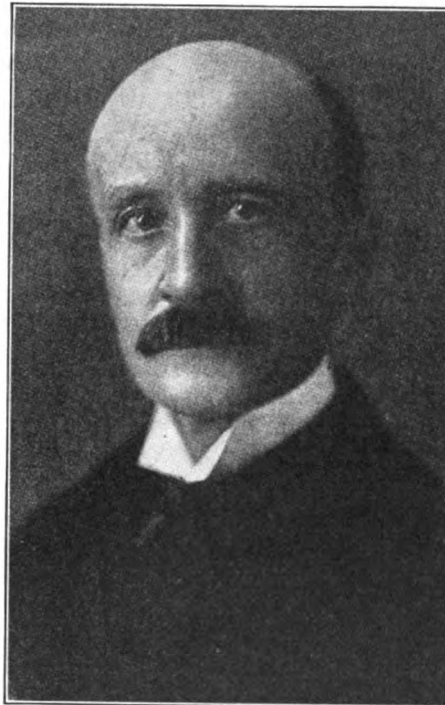


UNION N. BETHELL, 1888.

the public as right now. The voice of the reformer is heard everywhere throughout the land. Everything is being attacked, every success is questioned and the limelight of investigation is directed to every business in which the public can in any way be interested. Some of these reformers are doubtless self-seeking, dishonest men, longing for popularity, seeking for ways to attract public attention and political support at the polls. But many of them are honest men endeavoring to correct wrongs and to increase the happiness of the people. With all such we must work cordially and energetically.

We have nothing to conceal in our business; it is a legitimate enterprise, conducted under the sanction of the nation's laws, and I believe that if our patrons and the public could only know all the facts connected with the telephone business, it would receive the full recognition which it justly deserves.

A very complex problem is presented at this time when we consider the relations between ourselves and our competitors. In the past I am of the opinion that these relations have not been all

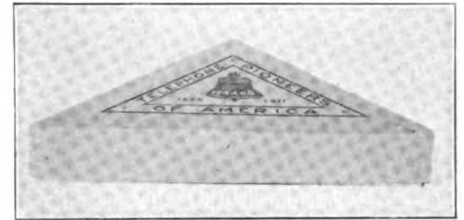


E. B. FIELD, 1880.

the possibilities of any other interest or any combination of interests so to develop. I believe we have some rights, because we are in the best position to give to the public universal telephone service of the highest grade and therefore, in the treatment of our competitors I believe we should assume, as we have assumed, an attitude of friendliness, of helpfulness, an attitude which seeks at the same time the best policies for the public at large, and the saving to the investor who has opposed us in the past, of as large a proportion of his investment as is commercially possible.

Certainly there is no place or occasion in our business for anything that is petty or small or mean. We can afford to be kind and generous, and in the long run the exhibition of these qualities will bring us not only friends but the highest type of success.

During the last few years there has grown up in this country a system for regulation and control of public service corporations which brings to us a new and a most important problem. I refer to the fact that the federal government



TRIANGULAR BOX IN WHICH ICE CREAM WAS SERVED AT THE BANQUET.

and nearly all of the states, have seen fit to delegate a portion of judicial and administrative power to the various commissions which have been established.

With all of these commissions we have much to do, and in the future shall doubtless have much more to do. It is to these bodies of men, having a combination of judicial and administrative functions, that we must look for advice and direction in the conduct of our business.

We have become so important to the public at large that the lawmakers have thought it necessary to establish a connecting link between the corporations which serve the public and the public itself. Our problem, as I see it, is to convince these commissions that our rates, our practices, and our policies are just and equitable, or else cheerfully change our rates, our practices, and our policies whenever we are requested to do so.

It is of the utmost importance to us that the public at large shall have full confidence in the ability and the integrity of these commissions, and to that end we should assist the commissions in every way in our power to arrive at conclusions which are just and right. I am of those who believe that in the present unsettled conditions of the public mind on so many and varied questions, our



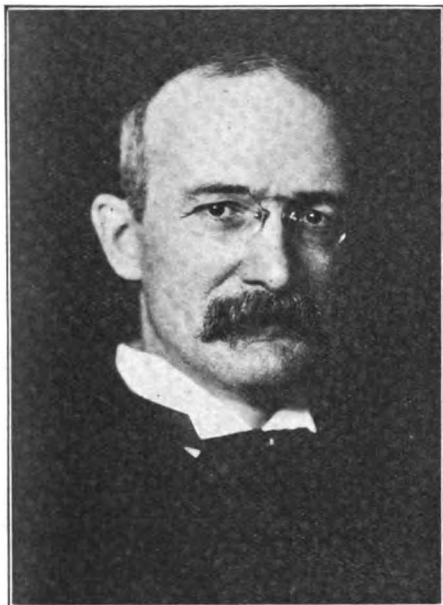
FRANK H. BETHELL, 1890.

greatest safeguard lies in these same commissions, in the fact that the commissions have all the machinery necessary for collecting data and the time and intelligence for considering and weighing the data so collected in order that their conclusions may be final and acceptable to all concerned.

The Interstate Commerce Commission at Washington is at this time pursuing



ONE OF THE PLACE CARDS AT THE BANQUET.



H. B. THAYER, 1881.

two lines of investigation, concerning which many of you know. One line is general, and has to do with the telephone business as a whole, and in following up this investigation the commission has propounded twenty-three questions which are now being answered by all of the telephone companies in the United States having an income of \$50,000 per annum or more. These questions are searching, and are well calculated to place in the hands of the commission and of the public at large the salient facts connected with our business.

Besides this general investigation, the commission is just starting now to make a detailed inventory of the physical property owned by the telephone companies of the United States. It will doubtless take years to accomplish this great task, but once completed the facts will be of the utmost value not only to our interests but to the public.

The establishment of these commissions, however, has in no wise reduced the interest which the various municipalities of the country have concerning our business. In some instances, indeed, the authority of municipalities with respect to the telephone business has either been taken away or modified, but nevertheless the municipalities are very jealous of their authority over public utility companies operating in their midst, and we still, therefore, have the municipalities themselves to deal with. In all these questions the great problem is to truthfully represent the business as it actually exists.

The federal government, as never before, has recently evinced the utmost interest in our policies and our undertakings, and has raised the spectre of the Sherman law in a suit recently instituted in the State of Oregon. This is neither the time nor the place to discuss the probable outcome of such litigation, but the problem is to present our side of the case so that it will be decided on its merits and not with any feeling of prejudice or enmity. And the policy of the time is simply this, to ascertain what is right, what is just, what is required by the authorities, and then to meet the requirements. Mr. Vail has said in this connection:

Every possible assistance will be given by us to the courts in their effort to determine whether our policy is or has been inimical to public interest. We desire that everything wrong be corrected; we will voluntarily rectify any wrong that may be pointed out to us; and so far as it may be determined that our policy or any act under it is against the public interest we will promptly conform to such determination.

But the most important problem with which we have to do is the giving of service to the public. It is for this and for this alone that the telephone business exists, and if we fall short of doing our utmost duty in this particular we shall be recreant to the trust and confidence which we ask the public to place in us.

This is peculiarly a problem of organization. That the officials of a company cannot themselves individually give service is a self-evident fact, but it is also quite as evident that the officials of the company hold their positions for just that one purpose of giving service. The latest graduate from an operators' training school would beat Mr. Vail all to pieces at a switchboard, and yet the policies and regulations which Mr. Vail originates and prescribes are finally directed to this same raw recruit, and must impel her to do the best she can for the patrons of the business. The securing and the training of an organization to perform this high civic duty, I repeat, is the most important, the greatest problem of a telephone company; and all along the line, from president to the operator, the idea must permeate, must be reiterated over and over again, that all of us are nothing more or less than the servants of the public. The public is our master, and we must heed its bidding if we would satisfy it, and we can-



H. J. PETTENGILL.

not be successful in our line of business unless we do satisfy the public.

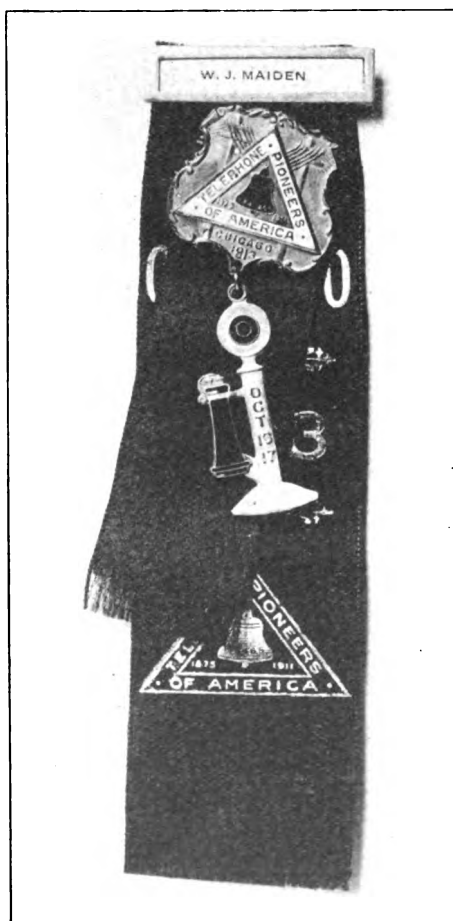
This is a large undertaking, but it is one which should not discourage us, for in it is found the real genius and purpose of the business, and the idea of service should be constantly in the minds not only of the operators or the traffic force, but of every officer and employe of the company.

Why do we enter into financial arrangements? For no other purpose than to give service. Why do we delve into the secrets of nature in our engineering department and translate these secrets into plain facts for the construction department? For the purpose of giving service. What is the legitimate method of meeting opposition? By giving a superior service. Why do we foster friendly relations with the public? In order that the public may purchase and appreciate our service. Why do we take steps to justify our acts before public officials? Merely that they may understand our problems and our methods of giving service.

This problem is more and more difficult of solution. More is required of us at the present time in the way of service than ever before. The public is more difficult to satisfy. Greater refinements in equipment, in plant construction, in instruments, in operating methods, are required. The telephone, which was originally supposed to be a toy, soon developed into a great public convenience and has now come to be an absolute necessity. Our responsibility is therefore a tremendous one, and no portion of it can be shifted to the public or public authority.

In almost any other line of endeavor there is an alternative to which the people may turn in case their usual reliance fails, but if we should fail there is no possible alternative; hence our great responsibility.

I am sometimes almost inclined to wish that for a given twenty-four hours every telephone in the United States might be silenced, every operator away from her post, every executive at rest. If the injury to individuals would not be so direct and lasting, it would be interesting to note the results of such a com-



PIONEER'S BADGE.

plete stoppage of service. Of course such a thing can never happen—must never happen—and we can get some idea of the utter stagnation of business and human intercourse when we consider what occurs when an infinitesimal portion of service is rendered unavailable for some brief period. And again, I repeat, our great problem, the reason for our existence, is to keep this service going continually and at a high point of efficiency.

These are a few of the important problems which the past has given as a heritage to the present and future. The problems of the past in the telephone business never had greater results than any problem of the future can possibly have. No one can ever accomplish anything approaching the importance to the business of the discovery and invention of the telephone. Dr. Bell and Mr. Watson occupy unique positions; no one may ever hope to equal the importance of their work.

The success of these two great original pioneers initiated forces in the line of invention, development and management

which in intensity and in success have seldom been equaled. The evolution of the switchboard, the adding to copper wire sufficient of tensile strength, the adaption to telephone uses of the storage battery and of electric light signals, the working out of the multitudinous problems incident to long-distance transmission, the combination of many widely scattered operating units into a compact, homogeneous, harmonious system—these are indeed victories the importance of which can scarcely be equaled in the future. One of the greatest things ever accomplished for the telephone business fell to the lot of that most able and efficient foster father of the Bell system, Mr. Gardner Hubbard. His great achievement was neither invention nor development. His was the distinguished honor of securing for the business the greatest dynamic force it ever had or ever can have. You all know I refer to our beloved President, Theo. N. Vail. He has solved the problems of the past; he is solving great problems now, and he will, let us hope, continue to solve them long into the future.



HENRY W. POPE, Secretary; 1877.

Many of you before me have had a great share in these fundamentally important problems. Your energy, devotion and success are qualities that we must admire and continue to emulate in solving the problems of the future.

And there is a great joy in the solving of these problems. I think we are engaged in the most difficult and at the same time the most interesting business in the world. We become absorbed in the joy of it, for we are performing a high type of civic service, and there is always joy in service.

Telephone Service for Pioneers

The telephone layout at the Congress Hotel for the convenience of Pioneers included a No. 4 two-position private branch exchange, ten booths, fifteen Wabash lines, eight long distance and seven toll terminals. In addition there were two terminals in the secretary's rooms, a line to the reception room, an information line and three connecting trunks to the Congress. The facilities were ample in every way. The maximum number of booths in use at any one time was eight, on several different occasions booths 1 to 8 being in use simultaneously. The local work was light except on calls to and from Official 300 and other local lines of the company, which was exceedingly heavy.

The switchboard was operated twenty-four hours a day until the night of the 19th, when it was closed at 11 p. m. and re-opened the morning of the 20th from 7:30 until noon.

There were two operators on duty during the entire time from 7 a. m. to 10 p. m., with two boys relieving each other between 10 p. m. and 7:30 a. m.

Absence of criticism and the speed with which the calls were handled were the best testimonials to the efficiency of the operators. The cooperation and team work between our operators and the operators at the Congress switchboard was very commendable. The Toll and A. T. & T. operators gave the best of service and the prompt and satisfactory way in which the A. T. & T. operators succeeded in clearing up the transmission on long hauls was appreciated very much, not only by the parties calling but by our private branch exchange operators.

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

CHICAGO, ILL., OCTOBER 18, 1913

CITY OF CHICAGO CROWDED WITH THE PIONEERS

Special Trains Fill Terminals
As Telephone Men
Arrive.

STREETS AND HOTELS JAMMED

Arriving Guests Meet and Shake Hands
With Old Time Friends at
Congress Hotel.

Chicago railroad terminals, long thought to be inadequate for such a growing center of art, literature and commerce, were taxed to the breaking point Thursday and Friday, owing to the pressure in our midst of the Telephone Pioneers of America. As a result we are reliably informed that the matter is being thoroughly investigated not only by the City Council, but also by the City Club, the Monday Lunch Association, the Association of Commerce and numerous other of the more prominent civic bodies.

The supreme test came at 2 o'clock Friday morning at the classic Union Station on the west bank of the Chicago river, when the special trains of the New York and Philadelphia Pioneers rolled in over the tracks of the Pennsylvania Railroad. It is, of course, a source of deep regret to local Pioneers that arrangements could not have been made to start the agitation towards securing better railroad terminals, and suitable facilities for receiving so large a visiting body, a little sooner. Had a tentative study been made by our engineers some six or eight years ago, and a development plan decided upon then, we might now be pointing with pride to the starting of the work instead of lamenting our inadequacy.

(Continued on Page Three.)

EXTRA

TELEPHONE PIONEERS OF AMERICA
CONVENTION
AT CONGRESS HOTEL, CHICAGO,
OCTOBER 17th AND 18th



THEODORE N. VAIL,
President of the Telephone Pioneers of
America.

CONVENTION OPENS

Representative Gathering. Grooms
President Vail as Gavel
Falls.

On time, and with a large and representative attendance, the Third Annual Convention of the Telephone Pioneers of America opened yesterday morning in the Gold Room of the Congress Hotel, Chicago.

(Continued on Page Two.)

TELEPHONE PLAY PRODIGIOUS HIT AT STUDEBAKER

Audience Wrought to Verge of
Frenzy by Scenes of Past
and Future.

NOTHING LIKE IT IN HISTORY

Strong Women Blush While Hysterical
Men Scream and
Tide.

TELEPHONY, a musical comedy in two parts and four scenes, presented by the H. P. Hill Amusement Company at the Studebaker Theater, Chicago, October 18, 1913.

The Cast.
Act I.
Edward Everett West, a Negro Porter.
Oliver Bridgman, Western Inventor.
William Hampton, Western Inventor.
G. G. Hubbard, a Friend of Hubbard.
T. A. Watson, an Expert.
Thomas Sanders, the First Pioneer.
Barker "Tudy," a Reptile, sporty, tight.
Joey O'Connell, a Messenger Boy.
Apple Mary, a Fruit Stand Keeper.
Act II.
"No slender, with her mother's hair"
"But now, also, there's in Chicago, part."
Foreman Ripley, of the Gang.
Thomas D. Lockwood, an Inventor.
Thomas B. Doolittle, a Yankee Inventor.
E. T. Gilliland, a Hoosier Inventor.
Emily Berliner, a young German Inventor.
R. W. Pope, Manager of Telephone Pioneers.
Charlie Fuller, First Switchboard Operator.
Pollockman Muldoon.
G. L. Adkins.

The Development of Some Early Telephone Apparatus

By Thomas B. Doolittle, Pine Orchard, Conn.—Address Delivered before the Telephone Pioneers, October 17, 1913.

If a Pioneer were to write his experience he must have started with his telephone career and written continuously up to the present time.

When Secretary Pope invited me to address this meeting of the Pioneers, the matter was held in abeyance as a little out of my line and, when finally accepted, I was at a loss to know what to talk about. Later, in Mr. Hibbard's office, I was relating to him an early experience in the telephone field when he said, "You should tell that to the Pioneers." This gave me a clue to a subject.

As Messrs. Bell and Watson have given us such wonderfully interesting accounts of their work which resulted in the telephone, a few reminiscences from one who was early in the field of its application to public use may be of interest.

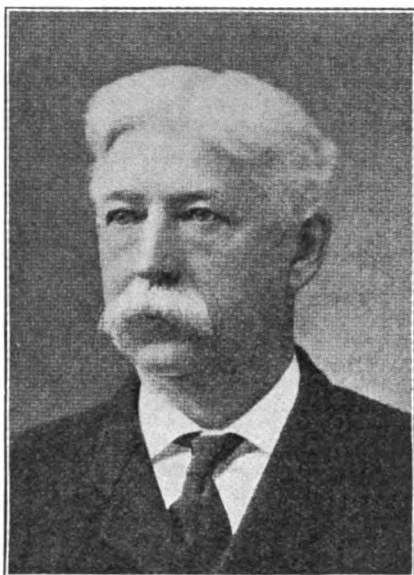
As the circumstances that determine the course of an individual life are oftentimes interesting, I will relate those that opened to me the telephone field.

During the late 60's and up to 1876, I was engaged in manufacturing at Bridgeport, Conn. Certain of our goods (barbed wire) was in great demand, and rush orders by telegraph were received from points in the west and south. Our patronage of the telegraph attracted the attention of Mr. O. E. Cole, Manager of the Atlantic and Pacific Telegraph Company. He called upon me to solicit business for his company and suggested that a line be run from his office to mine. "But I am not an operator." "You can learn," said he.

Our works were running double turn—twenty-four hours 'round—and I was rather busy, but you know a busy man can always take on more. I called up my old friend, D. W. Kissam, of the Bridgeport Brass Company, and suggested that we take up telegraphy as a sort of fad or pastime. Mr. Kissam entered into the scheme with enthusiasm; lines were run from our respective places of business to the Atlantic and Pacific office and to our residences. Others entered the fun, and upward of twenty stations were added. A home-made Western Union pattern switchboard was placed upon the wall over the operator's table. We then organized "The Bridgeport Social Telegraph Association." When one member wished to call another, he would sound that member's call and sign his own. The operator, hearing this, would so adjust the plugs in the switchboard that a connecting line was established between the calling and the called station. The system was exactly comparable to a telephone exchange, in connecting business houses, factories, banks, residences, etc., except that it was operated by telegraph instead of telephone. The members of families, business men and clerks were pounding away to learn Morse. It was taking on quite a business like air when the telephone appeared upon the scene.

I took great interest in the affair, with Mr. Cole, and spent many evenings at his office discussing telegraph matters. One evening the subject of Professor Gray's experiments came up. I re-

marked, as I was leaving the office, "If they can make it sing, they will make it talk, and some day there will be a little device about as big as my watch that we will attach to our wires and talk to each other instead of telegraphing." A few years later Mr. Cole



THOMAS B. DOOLITTLE, 1877.

wrote me a letter in which he recalled this remark.

This remark was merely conjecture; it was not to imply that I had the faintest idea how the thing was to be brought about, but it does prove that I had, at that time, a clear idea of a telephone exchange and that, before the telephone was invented.

Two or three years prior to the time of the events related above, I was in a Philadelphia street car and observed for the first time the Bell Punch for recording fares. The "pink strip slip for a three-cent fare," etc., appeared to me rather complicated, so, upon my return home, I made a sketch of a fare register and handed it to my superintendent with instructions to have one made when one of the skilled workmen was at liberty. The register was finally completed.

Soon after this, Mr. W. H. Hayward called at my office, looking for something to do. I called his attention to the fare register. He took the device to New York and interviewed some of the street railway people. He came back very much discouraged and said the jig was up. I asked him what they said. He replied that Mr. Schribner, of the Belt Line, remarked that it would not do, as it made no provision for half fares. I said, "You go back to Mr. Schribner and tell him to do away with half fares—charge full fare or nothing." This he did, and Mr. Schribner exclaimed, "Why not!" A contract was entered into and the "Hartford Alarm Register Company" was organized. Fare registers were gradually adopted on all street railways,

and half fares were abandoned. The Hartford Alarm Register Company was established in New York, under the management of Charles A. Cheever.

During the latter part of June, 1877, I was present at a directors' meeting of the Register Company when four telephones were brought in. This was on Saturday. I borrowed some of the telephones, took them to Bridgeport, and, on Sunday afternoon, members of the Telegraph Association were called together in the office of the Atlantic and Pacific Telegraph Company, where experiments were carried on, illustrating the use of the telephone on our system. With the telephone attached, the system became a telephone exchange then and there. Tests were made from various stations, and as far out as Black Rock, some four miles distant. All interest in the telegraph system was lost, and I immediately began soliciting subscribers for the telephone system. P. T. Barnum was my first subscriber.

Willard L. Candee, of the Okonite Company, New York, was then connected with the Register Company, and many others will remember the above facts.

Mr. W. H. Hayward, secretary of the Register Company, had immediately applied for and secured the agency for the telephone in Fairfield and New Haven counties and, later, Hartford and Litchfield counties, Connecticut and Hampden and Hampshire Counties, Mass. It therefore became necessary for me to work with Mr. Hayward. All telephones were sent to me in Bridgeport for distribution throughout the above mentioned territory.

During the summer and fall of 1877, telephones were placed upon the Association's wires and I had them in stock or to spare, until the Atlantic and Pacific Telegraph Company's office was closed and taken over by the Western Union. A representative of the Western Union asked me to allow him to connect the Association wires into the Western Union office. I declined, and he said, "What are you going to do with them?" "I may rent them for clothes lines; just cut them off at the roof fixtures." Three of these wires were taken over to my new office on Fairfield avenue, and continued in service. They were also used for the purpose of illustrating the exchange to prospective subscribers.

In the meantime, I was working on the subject of central office apparatus. Having Bridgeport secured with a franchise, I visited New Haven, with the object of interesting capital in the project. I called upon Mr. John E. Earle and asked him to get his friends together and organize a company. After discussing the matter with his friends for some time, he decided not to do so.

Later on a letter from Mr. George W. Coy, Manager of the Atlantic and Pacific office in New Haven, was forwarded to me. This letter was addressed to the Bell interests in Boston, asking for an agency, as, he wrote, some parties in New Haven wanted a private line. As Acting Agent for New Haven, I called upon Mr. Coy with the letter, and sug-

gested that he join me in starting what we then called a district system. Mr. Coy promptly took the matter up with Mr. Hayward and me, associated others with himself and pushed the work with great enterprise. But I was left out.

My observations led me to agree with Robert Burns that there is a period in every man's life when things go awry. I have no disposition to hold Dr. Bell responsible for my misfortunes but they were coincident with his wonderful achievement. Up to 1876 I had attained more than the average success in business when suddenly and without warning it was closed out by the sheriff by reason of signed blank forms that I had left in other hands for convenience during my absence from town. This proved too great a convenience and temptation to the other man and was absolute ruin to both him and me. Friends came forward and offered me partnerships, others offered money and credit to re-establish me in business, but, curiously enough, no one would join me in the telephone proposition, and I was called all kinds of a fool for taking it up. The money to develop my exchange was secured by building private lines and from the sale, to Eugene F. Phillips, of Providence, of my switch cord tip, for \$2500, and money borrowed from relatives.

A few years later I met one of my old friends, D. W. Plume, of Waterbury, who had offered me money and credit to re-enter business but who had spurned with indignation my proposition that he join me in the telephone enterprise. He later invited me to his room in the hotel, and, after closing the door very ceremoniously, he turned and asked me to kick him.

In November, 1877, I built a line connecting the mill and offices of the Ansonia Brass and Copper Company. These works were adjoining those of Wallace and Sons, who were also manufacturers of copper wire and by whom I was once employed. It was there that I acquired the knowledge of wire drawing and, very

largely, whatever mechanical skill I possess. I asked Superintendent Samuel Cotter to allow me to use copper wire and also to permit me to supervise the drawing of the wire. He replied, "Yes, you can make it of gold if you want to," and thereupon drove me to the wire mill and left orders for them to follow my di-



H. F. HILL, 1890.

rections. As wire drawing is an art in which there are no amateur performers that I ever knew of, I selected a man whom I had known in former years as a fine workman. After a day or two of experiment with different sized rods and by drawing carefully through several gradually reduced dies or "holes," a product was obtained which had the desired tensile strength and torsion, or what is known as hard-drawn copper wire.

Soon afterwards I connected all of the mills and offices of this company into a private exchange system with the same material. This was the first hard-drawn copper wire for electrical purposes ever produced and also the first private exchange. I had sections taken down after exposure to the elements one year, two years, three and four years, showing no deterioration, either in conductivity or tensile strength. These samples were, for the most part, sent to Boston, with no results. I tried to induce the Ansonia Brass and Copper Company, as an advertisement, to deliver some of this wire at the cost of iron wire. This they refused to do. One day I met Colonel Fred Mason, President of the Bridgeport Brass Company. He said to me, "Tom, there should be something in your business for us to do." I replied, "There is, but you wire people have got no sand." "Now, wait; listen; I'll do any thing you ask me. Now go ahead." I said, "I want you to furnish to any one whom I may designate a quantity of hard-drawn copper wire." I then described to him how it should be drawn. I then saw the General Manager of one of our companies who agreed to place an order. I then left for a long trip west. Upon my return, I hastened to see the line, and what do you think I found—that they had strung soft, cotton-covered wire. The cotton was water-

soaked and the wire was hanging in festoons from end to end of the line. I sought out the General Manager and asked for an explanation. He said he had ordered it in that way, so that if it did not prove in, he could take it down and use it for inside wiring. Although I felt that Colonel Mason never should have consented to have filled the order in that way, I later recommended him to Mr. Vail, as he had suffered a little financially on account of it.

I obtained a promise from the management of the New England Company to run a metallic circuit of copper wire from Boston to Worcester, but they weakened and instead they strung a No. 4 iron grounded circuit. It was about as well adapted for telephone purposes as a boiler shop.

It was incomprehensible to me that, with the proof at hand, the electrical people did not sooner realize the value of this material, that was cheaper than iron in conductivity and practically everlasting. I made every effort to introduce it, without success, until Mr. Vail commissioned me to build an experimental line from New York to Boston. When Mr. Vail spoke to me of the matter I was very much surprised for the reason that I had assumed that it was he who had turned it down, for Dr. Jaques' reports to me were always favorable. In this connection I wish to state that it is very doubtful if at that time any other man in the world would have risked \$70,000 in such an innovation. It was not exactly an experiment, as the hard-drawn copper wire had been in use seven years and had been tested from time to time, showing no perceptible deterioration.

Thus it will be seen that the barbed wire brought me in touch with the telegraph, the fare register with Mr. Cheever, Mr. Cheever with the telephone, the telephone with the central office apparatus and hard-drawn copper wire and the endorsement of blank paper took me out of the manufacturing busi-



H. F. THURBER, 1890.



G. E. McFARLAND, 1880.

ness. This is the first case that I remember where the endorsement of blank paper brought any good to the individual, and still I do not recommend it. However, I formed many acquaintances among manufacturers and wholesale men throughout the country which afterward were of great value to me as a means of introduction to city and state officials. General Hinchman, of the Western Union, remarked that I was the best acquainted man that he had met.

The telephone system is comparable to the sun, in that, for the benefit of the public, it is quite as impracticable to divide it on a state or national basis.

As a matter of fact, with a diagram of telephone lines only, it would be impossible to trace the national line between the United States and Canada.

As I was getting well under way with the exchange in Bridgeport, the Western Union Telegraph Company entered the telephone field and somehow appeared to make a special drive at me. I fought desperately and won out in divers places. At the Danbury, Conn., fight, one of the Western Union officials said to me, "Doo-little, you are a good fighter, but we are coming to Bridgeport and will do you up if it takes the whole capital stock of the Western Union to do it." I appealed to Boston, but they were nearly as bad off as I. At last Mr. William D. Bishop, then President of the New Haven road and a director in the Western Union, called upon me and, while expressing great appreciation of my enterprise, was sorry that his interests lay in another direction. He then proceeded to order all of my telephones out of the railroad, steamboat and express offices.

Then it was a question of accepting their proposition which was \$1,000 less than the business cost me, or trying to maintain a fight in which I was likely to lose everything. I made terms with them by which they agreed, on the side, not to remove the Bell instruments. We agreed that I was to remain in their employ three years, but it was optional with me after the first year. I accepted the situation and the place as a "pot boiler." I had made up my mind to quit the whole business and go back to manufacturing when one day I met Mr. Vall in the corridor of the Western Union building, and he said to me, "Let bygones be bygones. You come over to Boston, take off your coat and go to work." The Bell Company afterwards made up my loss on the Bridgeport exchange.

Upon taking up my work with the Western Union, I devoted all my spare time to get at the fundamental principle of what a switchboard should be and to a study of the problem of providing telephone service in New York City. I based my figures on a possible 50,000 subscribers in the not far remote future (we had, at the time, about 275). I found it impossible to center 50,000 subscribers with any known central-office apparatus then extant. After a careful study of the subject, I fixed upon what I termed "the unit system," which consisted of the signal and jack combined together and set in rows upon shelves in front of the switchboard. Even with this, the wires could not be centered at one point. I then divided the wires into groups, connected with trunks, or into what we now call the multi-office system. That is to say, that exchanges should be simultaneously established in different parts of the city and connected with trunk wires. I did not approve of the

multiple system for New York for I could not prove it as an economic measure, even with 50,000 subscribers. At the first meeting of the representatives of the telephone industry, at Niagara Falls, where many kinds of switchboards were shown and described, the only one from my standpoint, showing a correct fundamental principle was exhibited by Mr. Jones of Cincinnati, but in this each unit measured about one inch and a half wide by six inches high. My first experiment was about one inch by three inches; afterwards to one inch by one inch; then one-half inch by one inch; the latter by means of the automatic working steel ball. Later a lamp was substituted for this steel ball, and the space occupied further reduced. I have



DIRECTORY OF DINNER GUESTS.

always been sorry that I did not think of the little lamp.

I kept up an interest in central-office apparatus until it assumed correct fundamental lines of evolution.

In the line of apparatus, two achievements stand out in my memory and make me happier than any other two. One was the development of the long-distance transmitter by A. C. White, and the other when Mr. Hayes told me that the common battery was an assured success.

In looking over the field in the beginning, I met no one who seemed to have a comprehensive idea, or any idea at all, of the now termed telephone exchange, and, as my ideas on the subject dated back of the invention of the telephone, I felt that I might have some rightful claim in the matter. I therefore prepared drawings, specifications and claims. I went to the patent office with my attorney, W. C. McIntyre, where I sat between him and Examiner Buckingham and discussed the claims. Mr. Buckingham failed to see the patentability of the invention, saying that the substitution of telephone for Morse instruments did not, in his opinion, constitute an invention. I tried to explain that there were some combinations that were very unlike the telegraph system, but it was of no avail, and I reluctantly gave it up, accepting whatever he was pleased to allow. Some months afterwards I was passing through the patent office when Mr. Freeman, the chief examiner, accosted me, saying, "Why did you make no claims on that drawing that you left in the files? I have rejected eighteen applications on that drawing

and you made no claim for it." "My claims were not allowed," I replied. "Well," he said, "if you had appealed to me, I would have allowed them."

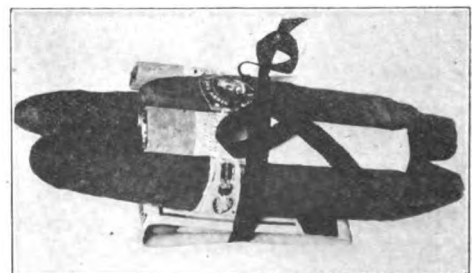
The switchboard shown in this patent was my first departure from the regular Western Union type and was made in the early winter of 1877-78. In this I substituted switches for plugs for convenience of manipulation, but immediately abandoned it after experimental use on the social telephone system.

In our telegraph system, in Bridgeport, we had much trouble by subscribers leaving their keys open. We therefore attached a spring, making a self-closing switch to overcome the trouble.

With this in mind, when I devised the subscriber's call bell, and after a consultation with Mr. Thomas A. Watson, the call bell was equipped with a locking lever in such a way that one end must be down while talking. This was awkward and uncomfortable but was about all that was allowed in the patent. No one ever heard me recommend their use. Later Mr. Williams attached a slide catch on one end of the bell. This brought in all the old time telegraph trouble.

In 1891 I was very much disturbed by the lack of interest in toll lines, for it seemed to me that the best interest of the public, as well as our own, was the development of a national system. I asked President Hudson to allow me to make a specialty of that work. I made up a little department for this purpose, and started a careful study of the whole United States, visiting all the states and cities, making a study of local conditions and trend of business. I was at first discouraged at the lack of interest but afterwards delighted with the aroused interest in this department of the business and with the enthusiasm and zeal displayed by my corps of assistants when they began to comprehend the scope and value of the work. Careful analyses were made of the trend of business from all points. Toll centers were established and a basis of estimate was fixed by the varied amount of toll receipts per caput in different sections of the country.

In 1909 I was retired from active work, and now, as from time to time I peer helplessly into the different departments, I am confronted with the thought that nothing can take from me the pleasure that was mine when I was peering into the future to discover those things which, though crude like the first Bell telephone, were fundamentally right, nor of being associated with the most devoted to their work and kindly set of men that were ever brought together for the development of any enterprise. While the past is interesting for the leisure of mankind, the future holds more for him who can anticipate the requirements of civilization.



ONE HIGHLY APPRECIATED BANQUET COURSE.

The Birth and Babyhood of the Telephone

By Thomas A. Watson, Boston—Address Delivered before the Telephone Pioneers, October 17, 1913.

I am able to speak to you of the birth and babyhood of the telephone, and something of the events which proceeded that important occasion. These are matters that must seem to you ancient history, in fact, they seem so to me, although the events all happened less than forty years ago, in the years 1874 to 1880.

The occurrences of which I shall speak, lie in my mind as a splendid drama, in which it was my great privilege to play a part. I shall try to put myself back into that wonderful play, and tell you its story from the same attitude of mind I had then—the point of view of a mere boy, just out of his apprenticeship as an electro-mechanic, intensely interested in his work, and full of boyish hope and enthusiasm. Therefore, as it must be largely a personal narrative, I shall ask you to excuse my many "I's" and "my's" and to be indulgent if I show how proud and glad I am that I was chosen by the fates to be the associate of Alexander Graham Bell to work side by side with him day and night through all these wonderful happenings that have meant so much to the world.

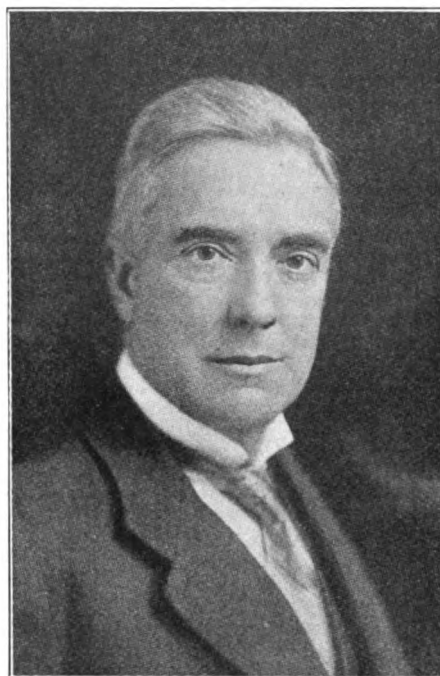
I realize now what a lucky boy I was, when at thirteen years of age I had to leave school and go to work for my living, although I didn't think so at that time. There's a "tide in the affairs of men," you know, and that was the beginning of its flood in my life, for after trying several vocations—clerking, book-keeping, carpentering, etc., and finding them all unattractive, I at last found just the job that suited me in the electrical workshop of Charles Williams, at 109 Court street, Boston—one of the best men I have ever known. Better luck couldn't befall a boy than to be brought so early in life under the influence of such a high-minded gentleman as Charles Williams.

I want to say a few words about my work there, not only to give you a picture of such a shop in the early '70s, but also because in this shop the telephone had its birth and a good deal of its early development.

I was first set to work on a hand lathe turning blind posts for \$5 a week. The mechanics of today with their automatic screw machines, hardly know what it is to turn little rough castings with a hand tool. How the hot chips used to fly into our eyes! One day I had a fine idea. I bought a pair of twenty-five cent goggles, thinking the others would hail me as a benefactor of mankind and adopt my plan. But they laughed at me for being such a "sissy boy" and public opinion forced me back to the old time honored plan of winking when I saw a chip coming. It was not an efficient plan for the chip usually got there first. There was a liberal education in it for me in manual dexterity. There was no specializing in those shops at that time. Each workman built everything there was in the shop to build, and an apprentice also had a great variety of jobs, which kept him interested all the time, for his tools were poor and simple and required lots of thought to get a job done right.

There were few books on electricity published at that time. Williams had copies of most of them in his show case, which we boys used to read noons, but

the book that interested me most was Davis' Manual of Magnetism, published in 1847, a copy of which I made mine for twenty-five cents. If you want to get a good idea of the state of the electrical art at that time, you should read that book. I found it very stimulating and



THOMAS A. WATSON, 1875.

that same old copy in all the dignity of its dilapidation has a place of honor on my book shelves today.

My promotion to higher work was rapid. Before two years had passed, I had tried my skill on about all the regular work of the establishment—call bells, annunciators, galvanometers, telegraph keys, sounders, relays, registers and printing telegraph instruments.

Individual initiative was the rule in Williams' shop—we all did about as we pleased. Once I built a small steam engine for myself during working hours, when business was slack. No one objected. That steam engine, by the way, was the embryo of the biggest ship building plant in the United States today.

Such was the electrical shop of that day. Crude and small as they were, they were the forerunners of the great electrical works of today. In them were being trained the men who were among the leaders in the wonderful development of applied electricity which began soon after the time of which I am to speak. Williams, although he never had at that time more than thirty or forty men working for him, was one of the largest and best fitted shops in the country. I think the Western Electric shop at Chicago was the only larger one. That was also undoubtedly better organized and did better work than Williams'. When a piece of machinery built by the Western Electric came into our shop for repairs, we boys always used to admire the superlative excellence of the workmanship.

Besides the regular work at Williams', there was a constant stream of wild-eyed

inventors, with big ideas in their heads and little money in their pockets, coming to the shop to have their ideas tried out in brass and iron. Most of them had an "angel" whom they had hypnotized into paying the bills. My enthusiasm and, perhaps my sympathetic nature made me a favorite workman with those men of visions, and in 1873-74 my work had become largely making experimental apparatus for such men. Few of their ideas ever amounted to anything, but I liked to do the work, as it kept me roaming in fresh fields and pastures new all the time. Had it not been, however, for my youthful enthusiasm—always one of my chief assets—I fear this experience would have made me so skeptical and cynical as to the value of electrical inventions that my future prospects might have been injured.

I remember one limber-tongued patriarch who had induced some men to subscribe \$1,000 to build what he claimed to be an entirely new electric engine. I made much of it for him. There was nothing new in the engine but he intended to generate his electric current in a series of iron tanks the size of trunks, to be filled with nitric acid with the usual zinc plates suspended therein. When the engine was finished and the acid poured into the tanks for the first time, no one waited to see the engine run, for inventor, "angel," and workmen, all tried to see who could get out of the shop quickest. I won the race as I had the best start.

I suppose there is just such a crowd of crude minds still besieging the work shops, men who seem incapable of finding out what has been already done, and so keep on year after year, thrashing old straw.

All the men I worked for at that time were not of this type. There were a few very different, among them, dear old Moses G. Farmer, perhaps the leading practical electrician of that day. He was full of good ideas, which he was constantly bringing to Williams to have worked out. I did much of his work and learned from him more about electricity than ever before or since. He was electrician at that time for the United States torpedo station at Newport, R. I., and in the early winter of 1874, I was making for him some experimental torpedo exploding apparatus. That apparatus will always be connected in my mind with the telephone, for one day when I was hard at work on it, a tall, slender, quick-motioned man with pale face, black side whiskers and drooping mustache, big nose and high sloping forehead crowned with bushy jet black hair, came rushing out of the office and over to my work bench. It was Alexander Graham Bell. He was bringing to me a piece of mechanism which I had made for him under instructions from the office. It had not been made as he had directed and he had broken down the rudimentary discipline of the shop in coming directly to me to get it altered. It was a receiver and a transmitter of his "Harmonic Telegraph," an invention of his with which he was then endeavoring to win fame and fortune. It was a simple affair by means of which, utilizing the law of sympathetic vibration, he expected to send six or eight Morse messages on a single wire at the same time, without interference.



FRANK A. KETCHAM.

Although most of you are probably familiar with the device, I must, to make my story clear, give you a brief description of the instruments, for though Bell never succeeded in perfecting his telegraph, his experimenting on it led to a discovery of the highest importance.

The essentials of both transmitter and receiver were an electro magnet and a flattened piece of steel clock spring. The spring was clamped by one end to one pole of the magnet and had its other end free to vibrate over the other pole. The transmitter had, besides this, make-and-break points like an ordinary vibrating bell which, when the current was on, kept the spring vibrating in a sort of nasal whine of a pitch corresponding to the pitch of the spring. When the signaling key was closed, an electrical copy of that whine passed through the wire and the distant receiver. There were, say, six transmitters with their springs tuned to six different pitches and six receivers with their springs tuned to correspond. Now, theoretically, when a transmitter sent its electrical whine into the line wire, its own faithful receiver spring at the distant station would wiggle sympathetically but all the others on the same line would remain coldly quiescent. Even when all the transmitters were whining at once through their entire gamut, making a row as if all the miseries this world of trouble ever produced were concentrated there, each receiver spring along the line would select its own from that sea of troubles and ignore all the others. Just see what a simple, sure-to-work invention this was; for just break up these various whines into the dots and dashes of the Morse messages and one wire would do the work of six, and the "Duplex" telegraph that had just been invented would be beaten to a frazzle. Bell's reward would be immediate and rich, for the "Duplex" had been bought by the Atlantic and Pacific Telegraph Company, giving them a great advantage over their only competitor, the Western Union Company, and the latter would of course buy Bell's invention and his financial problems would be solved.

All this was, as I have said, theoretical, and it was mighty lucky for Graham Bell that it was, for had his harmonic telegraph been a well behaved apparatus that always did what its parent wanted it to do, the speaking telephone might never have emerged from a certain

marvelous conception, that had even then been surging back of Bell's high forehead for two or three years. What that conception was, I soon learned, for he couldn't help speaking about it, although his friends tried to hush it up. They didn't like to have him get the reputation of being visionary, or—something worse.

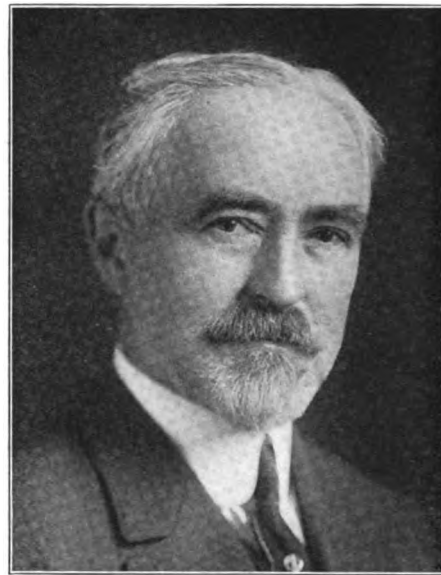
To go on with my story: after Mr. Farmer's peace-making machines were finished, I made half a dozen pairs of the harmonic instruments for Bell. He was surprised, when he tried them to find that they didn't work as well as he expected. The cynical Watson wasn't at all surprised for he had never seen anything electrical yet that worked at first the way the inventor thought it would. Bell wasn't discouraged in the least and a long course of experiments followed which gave me a steady job that winter and brought me into close contact with a wonderful personality that did more to mould my life rightly than anything else that ever came into it.

I became mightily tired of those "whiners" that winter. I called them by that name, perhaps, as an inadequate expression of my disgust with their persistent perversity, the struggle with which soon began to take all the joy out of my young life, not being endowed with the power of Macbeth's weird sisters to

"Look into the seeds of time,

And say which grain will grow and which will not."

Let me say here, that I have always had a feeling of respect for Elisha Gray, who, a few years later, made that harmonic telegraph work, and vibrate well-behaved messages, that would go where they were sent, without fooling with every receiver on the line.

RECEIVER SHELL CANDLE STICK.
Souvenir at Banquet.

ALONZO BURT, 1891.

Most of Bell's early experimenting on the harmonic telegraph was done in Salem at the home of Mrs. George Sanders, where he resided for several years, having charge of the instruction of her deaf nephew. The present Y. M. C. A. building is on the site of that house. I would occasionally work with Bell there but most of his experimenting in which I took part was done in Boston.

Mr. Bell was very apt to do his experimenting at night, for he was busy during the day at the Boston University, where he was professor of vocal physiology, especially teaching his father's system of visible speech, by which a deaf mute might learn to talk—quite significant of what Bell was soon to do in making mute metal talk. For this reason I would often remain at the shop during the evening to help him test some improvement he had had me make on the instruments.

One evening when we were resting from our struggles with the apparatus, Bell said to me: "Watson, I want to tell you of another idea I have, which I think will surprise you." I listened, I suspect, somewhat languidly, for I must have been working that day about sixteen hours with only a short nutritive interval, and Bell had already given me during the weeks we had worked together, more new ideas on a great variety of subjects, including visible speech, elocution and flying machines, than my brain could assimilate, but when he went on to say that he had an idea by which he believed it would be possible to talk by telegraph, my nervous system got such a shock that the tired feeling vanished. I have never forgotten his exact words; they have run in my mind ever since like a mathematical formula. "If," he said, "I could make a current of electricity vary in intensity, precisely as the air varies in density during the production of a sound, I should be able to transmit speech telegraphically." He then sketched for me an instrument that he thought would do this, and we discussed the possibility of constructing one. I did not make it; it was altogether too costly and the chances of its working too uncertain, to impress his financial backers—Mr. Gardiner G. Hubbard and Mr. Thomas Sanders—who were insisting that the wisest thing for Bell to do was to perfect the harmonic telegraph; then he would have money and

leisure enough to build air castles like the telephone.

I must have done other work in the shop besides Bell's during the winter and spring of 1875, but I cannot remember a single item of it. I do remember that when I was not working for Bell I was thinking of his ideas. All through my recollection of that period runs that nightmare—the harmonic telegraph, the ill working of which got on my conscience, for I blamed my lack of mechanical skill for the poor operation of an invention apparently so simple. Try our best we could not make that thing work rightly, and Bell came as near to being discouraged as I ever knew him to be.

But this spring of 1875, was the dark hour just before the dawn.

If the exact time could be fixed, the date when the conception of the undula-





PIONEER'S PENNANT.

tory or speech-transmitting current took its perfect form in Bell's mind, would be the greatest day in the history of the telephone, but certainly June 2, 1875, must always rank next; for on that day the mocking field inhabiting that demonic telegraph apparatus, just as a now-you-see-it-and-now-you-don't sort of a satanic joke, opened the curtain that hides from man great nature's secrets and gave us a glimpse as quick as if it were through the shutter of a snap-shot camera, into that treasury of things not yet discovered. That imp didn't do this in any kindly helpful spirit—any inventor knows he isn't that kind of a being—he just meant to tantalize and prove that a man is too stupid to grasp a secret, even if it is revealed to him. But he hadn't properly estimated Bell, though he had probably sized me up all right. That glimpse was enough to let Bell see and seize the very thing he had been dreaming about and drag it out into the world of human affairs.

Coming back to earth, I'll try and tell you what happened that day. In the experiments on the harmonic telegraph, Bell had found that the reason why the messages got mixed up was inaccuracy in the adjustment of the pitches of the receiver springs to those of the transmitters. Bell always had to do this tuning himself, as my sense of pitch and knowledge of music were quite lacking—a faculty (or lackulty) which you will hear later became quite useful. Mr. Bell was in the habit of observing the pitch of a spring by pressing it against his ear while the corresponding transmitter in a distant room was sending its intermittent current through the magnet of that receiver. He would then manipulate the tuning screw until that spring was tuned to accord with the pitch of the whine coming from the transmitter. All this experimenting was carried on in the upper story of the Williams building where we had a wire connecting two rooms perhaps sixty feet apart looking out on Court street.

On the afternoon of June 2, 1875, we were hard at work on the same old job, testing some modification of the instruments. Things were badly out of tune

that afternoon in that hot garret, not only the instruments but, I fancy, my enthusiasm and my temper, though Bell was as energetic as ever. I had charge of the transmitters as usual, setting them squealing one after the other, while Bell was retuning the receiver springs one by one, pressing them against his ear as I have described. One of the transmitter springs I was attending to stopped vibrating and I plucked it to start it again. It didn't start and I kept on plucking it, when suddenly I heard a shout from Bell in the next room, and then out he came with a rush, demanding, "What did you do then? Don't change anything! Let me see?" I showed him. It was very simple. The make-and-break points of the transmitter spring I was trying to start had become welded together, so that when I snapped the spring the circuit had remained unbroken while that strip of magnetized steel by its vibration over the pole of its magnet, was generating that marvelous conception of Bell's—a current of electricity that varied in intensity precisely as the air was varying in density within hearing distance of that spring. That undulatory current had passed through the connecting wire to the distant receiver which, fortunately, was a mechanism that could transform that current back into an extremely faint echo of the sound of the vibrating spring that had generated it, but what was still more fortunate, the right man had that mechanism at his ear during that fleeting moment, and instantly recognized the transcendent importance of that faint sound thus electrically transmitted. The shout I heard and his excited rush into my room were the result of that recognition. The speaking telephone was born at that moment. Bell knew perfectly well that the mechanism that could transmit all the complex vibrations of one sound could do the same for any sound, even that of speech. That experiment showed him that the complex apparatus he had

 TELEPHONE MESSAGE 	
10-17-1911 TIME 11-30 A.M.	
M. A. G. G. G.	
PLEASE BRING THIS NOTICE TO THE TELEPHONE PIONEERS ATTENDANT TO CALL MEZZANINE FLOOR TO SPEAK TO	
MESSAGE FROM TEL. NO. 11-30	

SPECIAL CALL SLIP.

Used by Pages in Summoning Convention Attendants to Telephone.

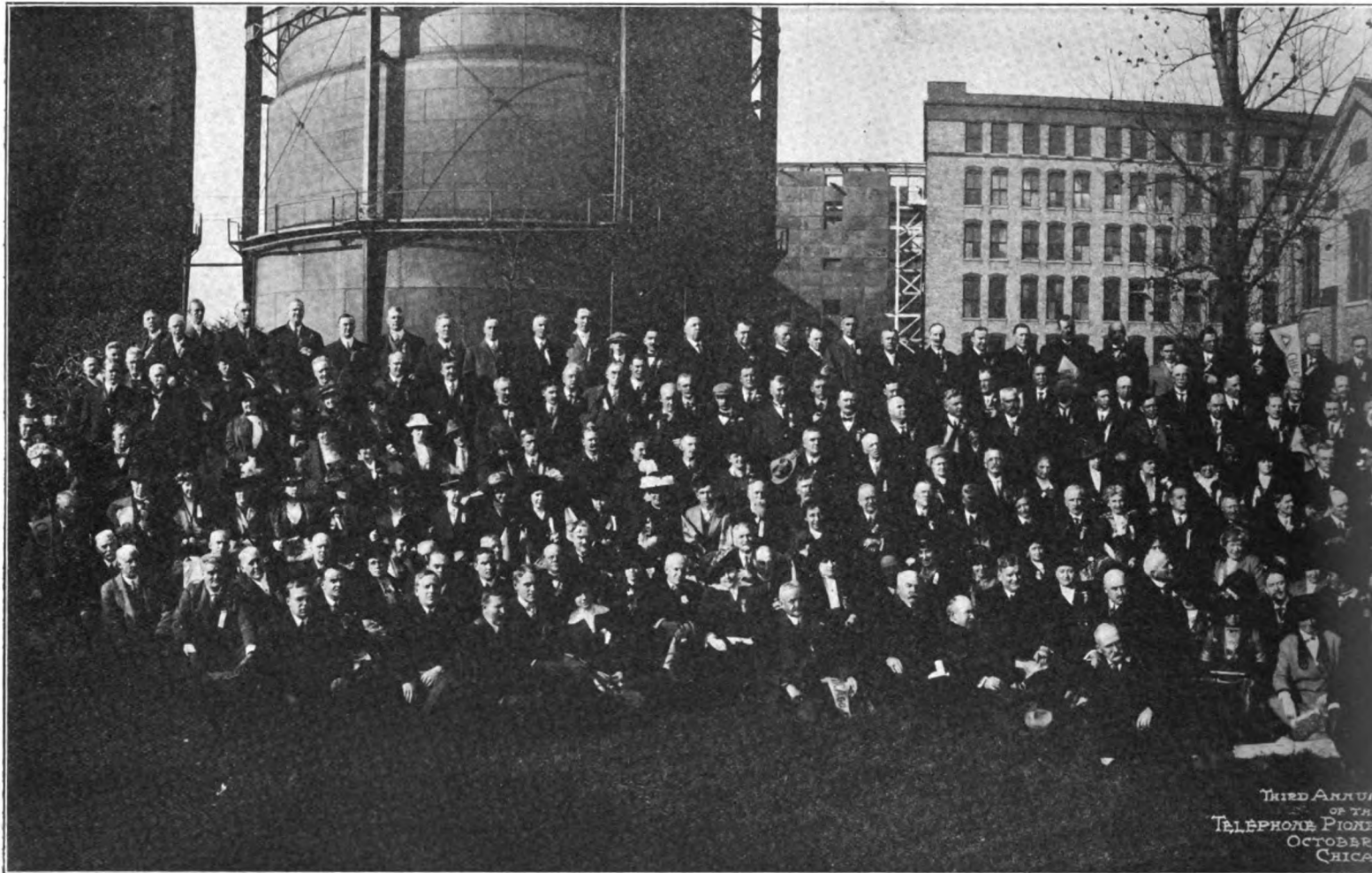
thought would be needed to accomplish that long dreamed result was not at all necessary, for here was an extremely simple mechanism operated in a perfectly obvious way, that could do it perfectly. All the experimenting that followed that discovery, up to the time the telephone was put into practical use was largely a matter of working out the details. We spent a few hours verifying the discovery, repeating it with all the differently tuned springs we had, and before we parted that night Bell gave me directions for making the first electric speaking telephone. I was to mount a small drum head of gold beater's skin over one of the receivers, join the center of the drumhead to the free end of the receiver spring and arrange a mouthpiece over the drumhead to talk into. His idea was to force the steel spring to follow the vocal vibrations and generate a current of electricity that would vary in intensity as the air varies in density during the utterance of speech sounds. I followed these directions and had the instrument ready for its trial the very next day. I rushed it, for Bell's excitement and enthusiasm over the discovery had aroused mine again, which had been sadly dampened during those last few weeks by the meager results of the har-



*The American Telephone and Telegraph Company
requests the honour of your presence
at a Dinner tendered to the
Telephone Pioneers of America
on the evening of Saturday the eighteenth of October
One thousand nine hundred and thirteen
at half-after seven o'clock
Congress Hotel
Chicago*

*Theodore N. Vail
President*

INVITATION TO BANQUET.



THIRD ANNIVERSARY
OF THE
TELEPHONE PIONEERS
OCTOBER
CHICAGO

GROUP PICTURE OF TELEPHONE PIONEERS

monic experiments. I made every part of that first telephone myself, but I didn't realize while I was working on it what a tremendously important piece of work I was doing.

The two rooms in the attic were too near together for the test, as our voices would be heard through the air, so I ran a wire especially for the trial from one of the rooms in the attic down two flights to the third floor where Williams' main shop was, ending it near my work bench at the back of the building. That was the first telephone line. You can well imagine that both our hearts were beating above the normal rate, while we were getting ready for the trial of the new instruments that evening. I got more satisfaction from that experiment than Mr. Bell did, for shout my best I could not make him hear me, but I could hear his voice and almost catch the words. I rushed up stairs and told him what I had heard. It was enough to show him that he was on the right track, and before he left that night he gave me directions for several improvements in the telephones I was to have ready for the next trial.

I hope my pride in the fact that I made the first telephone, put up the first telephone wire and heard the first words ever uttered through a telephone, has never been too ostentatious and offensive to my friends, but I am sure that you will grant that a reasonable amount of that human weakness is excusable in me. My pride has been tempered to quite a bearable degree by my realization that the reason why I heard Bell in that first trial of the telephone and he

did not hear me, was the vast superiority of his strong, vibratory tones over any sound my undeveloped voice was then able to utter. My sense of hearing, however, has always been unusually acute, and that might have helped to determine this result.

The building where these first telephone experiments were made is still in existence. It is now used as a theater. The lower stories have been much altered, but that attic is still quite unchanged and two weeks ago I stood on the very spot where I snapped those springs and helped test the telephones thirty-seven years and seven months before.

Of course, in our struggle to expel the imps from the invention, an immense amount of experimenting had to be done, but it wasn't many days before we could talk back and forth and hear each other's voices. It is, however, hard for me to realize now that it was not until the following March that I heard a complete and intelligible sentence. It made such an impression upon me that I wrote that first sentence in a book I have always preserved. The occasion had not been arranged and rehearsed as I suspect the sending of the first message over the Morse telegraph had been years before, for instead of that noble first telegraphic message, "What hath God wrought?" the first message of the telephone was, "Mr. Watson, please come here, I want you." Perhaps, if Mr. Bell had realized that he was about to make a bit of history, he would have been prepared with a more sounding and interesting sentence.

Soon after the first telephones were

made, Bell hired two rooms on the top floor of an inexpensive boarding house at No. 5 Exeter Place, Boston; since demolished to make room for mercantile buildings. He slept in one room; the other he fitted up as a laboratory. I ran a wire for him between the two rooms and after that time practically all his experimenting was done there. It was here one evening when I had gone there to help him test some improvement and to spend the night with him, that I heard the first complete sentence I have just told you about. Matters began to move more rapidly and during the summer of 1876, the telephone was talking so well that one didn't have to ask the other man to say it over again more than three or four times before one could understand quite well, if the sentences were simple.

This was the year of the Centennial Exposition at Philadelphia, and Bell decided to make an exhibit there. I was still working for Williams, and one of the jobs I did for Bell was to construct a telephone of each form that had been devised up to that time. These were the first nicely finished instruments that had been made. There had been no money nor time to waste on polish or non-essentials. But these Centennial telephones were done up in the highest style of the art. You could see your face in them. These aristocratic telephones worked finely, in spite of their glitter, when Sir William Thompson tried them at Philadelphia that summer. I was as proud as Bell himself, when I read Sir William's report, wherein he said, after giving an account of the



MEMBERS OF AMERICA TAKEN AT HAWTHORNE.

tests: "I need hardly say I was astonished and delighted; so were the others who witnessed the experiment, and verified with their own ears the electric transmission of speech. This, perhaps, the greatest marvel hitherto achieved by electric telegraph, has been obtained by appliances of quite a home spun and rudimentary character." I have never forgiven Sir William for that last line. Homespun!

However, I recovered from this blow, and soon after. Mr. Gardiner G. Hubbard, afterwards Mr. Bell's father-in-law, offered me an interest in Bell's patents if I would give up my work at Williams' and devote my time to the telephone. I accepted, although I wasn't altogether sure it was a wise thing to do from a financial standpoint. My contract stipulated that I was to work under Mr. Bell's directions, on the harmonic telegraph, as well as on the speaking telephone, for the two men who were paying the bills still thought there was something in the former invention, although very little attention had been given to its vagaries after the June 2nd discovery.

I moved my domicile from Salem to another room on the top floor at 5 Exeter Place, giving us the entire floor, and as Mr. Bell had lost most of his pupils by wasting so much of his time on telephones, he could devote nearly all his time to the experimenting. Then followed a period of hard and continuous work on the invention. I made telephones with every modification and combination of their essential parts that either of us could think of. I made and we tested telephones with all sizes of

diaphragms made of all kinds of materials—diaphragms of boiler iron several feet in diameter, down to a miniature affair made of the bones and drum of a human ear, and found that the best results came from an iron diaphragm of about the same size and thickness as is used today. We tested electro magnets and permanent magnets, of a multitude of sizes and shapes, with long cores and short cores, fat cores and thin cores, solid cores and cores of wires, with coils of many sizes, shapes and resistances and mouthpieces of an infinite variety. Out of the hundreds of experiments there emerged practically the same telephone you take off the hook and listen to today, although it was then transmitter as well as receiver.

Progress was rapid, and on October 9, 1876, we were ready to take the baby out doors for the first time. We got permission from the Walworth Manufacturing Company to use their private wire running from Boston to Cambridge, about two miles long. I went to Cambridge that evening with one of our best telephones, and waited until Bell signalled from the Boston office on the Morse sounder. Then I cut out the sounder and connected in the telephone and listened. Not a murmur came through! Could it be that although the thing worked all right in the house it wouldn't work under practical line conditions? That fear passed through my mind as I worked over the instrument, adjusting it and tightening the wires in the binding posts, without improving matters in the least. Then the thought struck me that perhaps there was an-

other Morse sounder in some other room. I traced the wires from the place they entered the building and sure enough I found a relay with a high resistance coil in the circuit. I cut it out with a piece of wire across the binding posts and rushed back to my telephone and listened. That was the trouble. Plainly as one could wish came Bell's "ahoy." "Ahoy." I ahoyed back, and the first long-distance telephone conversation began. Skeptics had been objecting that the telephone could never compete with the telegraph as its messages would not be accurate. For this reason Bell had arranged that we should make a record of all we said and heard that night, if we succeeded in talking at all. We carried out this plan and the entire conversation was published in parallel columns in the next morning's *Advertiser*, as the latest startling scientific achievement. Infatuated with the joy of talking over an actual telegraph wire, we kept up our conversation until midnight. It was a very happy boy that traveled back to Boston in the small hours with the telephone under his arm done up in a newspaper. Bell had taken his record to the newspaper office and was not at the laboratory when I arrived there, but when he came in there ensued a jubilation that elicited next morning from our landlady who wasn't at all scientific in her tastes, the remark that we'd have to vacate if we didn't make less noise nights.

Tests on still longer telegraph lines soon followed—the success of each experiment being in rather exact accordance with the condition of the poor rusty-jointed wires we had to use. Talk about

imps that baffle inventors! There was one of an especially vicious and malignant type in every unsoldered joint of the old wires. The genial Tom Doolittle hadn't even thought of his hard-drawn copper wire then, with which he later eased the lot of the struggling telephone man.

Meanwhile the fame of the invention had spread rapidly abroad and all sorts of people made pilgrimages to Bell's laboratory to hear the telephone talk. A list of the scientists who came to the attic of that cheap boarding house to see the telephone would read like the roster of the American Association for the Advancement of Science. My old electrical mentor, Moses G. Farmer, called one day to see the latest improvements. He told me then with tears in his eyes that when he first read a description of Bell's telephone he couldn't sleep for a week, he was so mad with himself for not discovering the thing years before. "Watson," said he, "that thing has flouted itself in my very face a dozen times within the last ten years and every time I was too blind to see it." "But," he continued, "if Bell had known anything about electricity he would never have invented the telephone."

Two of our regular visitors were young Japanese pupils of Professor Bell—very polite, deferential, quiet, bright-eyed little men, who saw everything and made cryptic notes. They took huge delight in proving that the telephone could talk Japanese. A curious effect of the telephone I noticed at that time was its power to paralyze the tongue of men otherwise fluent enough by nature and profession. I remember a prominent lawyer, who when he heard my voice in the telephone making some such profound remark to him as, "How do you do," could only reply, after a long pause, "Rig a jig jig and away we go."

Men of quite another sort came occasionally. Mr. Hubbard received a letter one day from a man who wrote that he could put us on the track of a secret that would enable us to talk any distance without a wire. This interested Mr. Hubbard and he made an appointment for the man to meet me. At the appointed time, a stout, rather unkempt man made his appearance. He didn't take the least interest in the telephone; he said that was already a back number, and if we would hire him for a small sum per week we would soon learn how to telephone without any apparatus or any wires. He went on to tell, in a most convincing way, how two prominent theatrical men in New York, whom he had never seen, had got his brain so connected into their circuit that they could talk with him at any time, day or night, and make all sorts of fiendish suggestions to him. He didn't know yet how they did it, but he was sure I could find out their secret. If I would just take the top off his head and examine his brain. It dawned on me then that I was dealing with an insane man. I got rid of him as soon as I could by promising to experiment on him when I could find time. The next I heard of the poor fellow he was in the violent ward of an insane asylum. Several similar cases of insanity attracted by the fame of the telephone, called on or wrote to us within a year of that time.

We began to get requests for telephone installations long before we were ready to supply them. In April, 1877, the first out-door telephone line was run between Mr. Williams' office at 109 Court Street and his house in Somerville. Professor Bell and I were present and participated

in the important ceremony of opening the line and the event was a head-liner in the next morning's papers.

At about this time Professor Bell's financial problems had begun to press hard for solution. We were very much disappointed because the president of the Western Union Telegraph Company had refused, somewhat contemptuously, Mr. Hubbard's offer to sell him all the Bell patents for the exorbitant sum of \$100,000. It was an especially hard blow to me, for while the negotiations were pending I had had visions of a sump-



C. D. M. COLE AND H. F. HILL AT WESTERN ELECTRIC.

tuous office in the Western Union Building in New York which I was expecting to occupy as Superintendent of the Telephone Department of the great telegraph company. However, we recovered even from that fiasco. Two years later the Western Union would gladly have bought those patents for \$25,000,000.

But before that happy time there were lots of troubles of all the old and of several new varieties to be surmounted. Professor Bell's particular trouble in the spring of 1877 arose from the fact that he had fallen in love with a most charming young lady. I had never been in love myself at that time and that was my first opportunity of observing what a serious matter it can be, especially when the father isn't altogether enthusiastic. I rather suspected at that time that that shrewd but kind-hearted gentleman put obstacles in the course of that true love, in order to stimulate the young man to still greater exertions in perfecting his inventions. But he might have thought as Prospero did:

"They are both in either's power; but this swift business

I must uneasy make, lest too light winning

Make the prize light."

Bell's immediate financial needs were solved, however, by the demand that began at this time for public lectures by him on the telephone. It is hard to realize today what an intense and widespread interest there was then in the telephone. I don't believe any new invention could stir the public today as the telephone did then, surfeited as we

are now with the wonderful things that have been invented since.

These lectures are important for another reason than that they solved a temporary money problem. They obviated the necessity of selling telephones outright, instead of leasing them so as to retain control—a policy Mr. Hubbard afterwards adopted which made possible the splendid universal service Mr. Vall with your help has given the Bell system today. Some of the ladies deeply interested in the immediate outcome were strenuously advocating at this critical juncture making and selling the telephones at once in the largest possible quantities—imperfect as they were. Fortunately for the future of the business the returns from the lectures that began at this very time obviated this danger.

Bell's first lecture, as I have said, was given before a well-known scientific society—the Essex Institute—at Salem, Mass. They were especially interested in the telephone because Bell was living in Salem during the early telephone experiments. The first lecture was free to members of the society, but it packed the hall and created so much interest that Bell was requested to repeat it for an admission fee. This he did to an audience that filled the house. Requests for lectures poured in upon Bell after that. Such men as Oliver Wendell Holmes and Henry W. Longfellow signed the request for the Boston lectures. The Salem lectures were soon followed by a lecture in Providence to an audience of 2,000, by a course of three lectures at the largest hall in Boston—all three packed—by three in Chickering Hall, New York, and by others in most of the large cities of New England. They all took place in the spring and early summer of 1877, during which time there was little opportunity for experimenting for either Bell or myself, which I think now was rather a good thing, for we had become quite stale and needed a change that would give us a new influx of ideas. My part in the lectures was important, although entirely invisible as far as the audiences were concerned. I was always at the other end of the wire, generating and transmitting to the hall where Professor Bell was speaking, such telephonic phenomena as he needed to illustrate his lecture. I would have at my end circuit breakers—rheotomes, we called them—that would utter electric howls of various pitches, a lusty cornet player, sometimes a small brass band, and an electric organ with Eddie Wilson to play on it, but the star performer was the young man who two years before didn't have voice enough to let Bell hear his own telephone, but in whom that two years of strenuous shouting into mouthpieces of various sizes and shapes had developed a voice with the carrying capacity of a steam calliope. My special function in these lectures was to show the audience that the telephone could really talk. Not only that, I had to do all the singing too, for which my musical deficiencies fitted me admirably.

Professor Bell would have one telephone by his side on the stage, where he was speaking, and three or four others of the big variety we used at that time would be suspended about the hall, all connected by means of a hired telegraph wire with the place where I was stationed, from five to twenty-five miles away. Bell would give the audience, first, the commonplace parts of the show and then would come the thrillers of the evening—my shouts and songs. I would shout sentences as "How do you

do," "Good evening," "What do you think of the telephone?" which they could all hear, although the words issued from the mouthpieces rather badly marred by the defective talking powers of the telephones of that date. Then I would sing "Hold the Fort," "Pull for the Shore," "Yankee Doodle," and as a delicate allusion to the Professor's nationality "Auld Lang Syne." My sole sentimental song was "Do not Trust Him, Gentle Lady." This repertoire always brought down the house. After every song I would listen at my telephone for further directions from the lecturer, and always felt the artist's joy when I heard in it the long applause that followed each of my efforts. I was always encored to the limit of my repertoire and sometimes had to sing it through twice.

I have always understood that Professor Bell was a fine platform speaker, but this is entirely hearsay on my part, for although I spoke at every one of his lectures, I have never yet had the pleasure of hearing him deliver an address.

In making the preparations for the New York lectures I incidentally invented the sound-proof booth, but as Mr. Lockwood was not then associated with us, and for other reasons I never patented it. It happened thus: Bell thought he would like to astonish the New Yorkers by having his lecture illustrations sent all the way from Boston. To determine whether this was practicable, he made arrangements to test the telephones a few days before on one of the Atlantic and Pacific Company's wires. The trial was to take place at midnight. Bell was at the New York end, I was in Boston laboratory. Having vividly in mind the strained relations already existing with our landlady, and realizing the carrying power of my voice when I really let it go, as I knew I should have to that night, I cast about for some device to deaden the noise. Time was short and appliances scarce, so the best I could do was to take the blankets off our beds and arrange them in a sort of loose tunnel, with the telephone tied up in one end and the other end open for the operator to crawl into. Thus equipped I awaited the signal from New York announcing that Bell was ready. It came soon after midnight. Then I connected in the telephone, deposited myself in that cavity, and shouted and listened for two or three hours. It didn't work as well as it might. It is a wonder some of my remarks didn't burn holes in the blankets. We talked after a fashion, but Bell decided it wasn't safe to risk it with a New York audience. My sound-proof booth, however, was a complete success, as far as stopping the sound was concerned, for I found by cautious inquiry next day that nobody heard my row. Later inventors improved my booth, making it more comfortable for a pampered public, but not a bit more sound-proof.

One of those New York lectures looms large in my memory on account of a novel experience I had at my end of the wire. After hearing me sing, the manager of the lectures decided that while I might satisfy a Boston audience I would never do for a New York congregation, so he engaged a fine baritone soloist—a powerful negro, who was to assume the singing part of my program. Being much better acquainted with the telephone than that manager was I had doubts about the advisability of this change in the cast. I didn't say anything, as I didn't want to be accused of professional jealousy, and I knew my repertoire would be on the spot in case

things went wrong. I was stationed that night at the telegraph office at New Brunswick, New Jersey, and I and the rest of the usual appliances of that end of a lecture went down in the afternoon to get things ready. I rehearsed my rival and found him a fine singer, but had difficulty in getting him to crowd his lips into the mouthpiece. He was handicapped for the telephone business by being musical, and he didn't like the sound of his voice jammed up in that way. However, he promised to do what I wanted when it came to the actual work of the evening, and I went to sup-



W. J. MAIDEN, CORRESPONDING SECRETARY, AND J. LLOYD WAYNE III, "APPLE MARY," SNAPPED AT HAWTHORNE.

per. When I returned to the telegraph office, just before eight o'clock, I found to my horror that the young lady operator had invited six or eight girl friends to witness the interesting proceedings. Now, besides my musical deficiencies, I had another qualification as a telephone man—I was very modest; in fact, in the presence of ladies, extremely bashful. It didn't trouble me in the least to talk or sing to a great audience, provided, of course, it was a few miles away, but when I saw those girls, the complacency with which I had been contemplating the probable failure of my fine singer was changed to painful apprehension. If he wasn't successful a very bashful young man would have a new experience. I should be obliged to sing myself before those giggling, unscientific girls. This world would be a better place to live in if we all tried to help our fellow men succeed, as I tried that night, when the first song was called for, to make my musical friend achieve a lyrical triumph on the Metropolitan stage. But he sang that song for the benefit of those girls, not for Chickering Hall, and it was with a heavy heart that I listened for Bell's voice when he finished it. The blow fell. In his most delightful platform tones, Bell uttered the fatal words I had foreboded, "Mr. Watson, the audience could not hear that. Won't you please sing?" Bell was always a kind-hearted man, but he didn't know. However, I nerved myself with the thought that that New York

audience, made sceptical by the failure of that song, might be thinking cynical things about my beloved leader and his telephone, so I turned by back on those girls and made that telephone rattle with the stirring strains of "Hold the Fort," as it never had before. Then I listened again. Ah, the sweetness of appreciation! The New York audience was applauding vigorously. When it stopped, the same voice said, with a new note of triumph in it, "Mr. Watson, the audience heard that perfectly and call for an encore." I sang through my entire repertoire and began again on "Hold the Fort," before that audience was satisfied. That experience did me good. I have never had stage fright since. But the "supposititious Mr. Watson," as they called me then, had to do the singing at all of Bell's subsequent lectures. Nobody else had a chance at the job; one experience was enough for Mr. Bell.

My baritone had his hat on his head, and a cynical expression on his face, when I finished working on those songs. "Is that what you wanted?" he asked. "Yes." "Well, boss, I couldn't do that." Of course he couldn't.

Another occasion is burnt into my memory that wasn't such a triumph over difficulties. In these lectures we always had another trouble to contend with besides the rusty joints in the wires; that was the operators cutting in, during the lectures, their highest resistance relays, which enabled them to hear some of the intermittent current effects I sent to the hall. Inductance, retardation and all that sort of thing which you have so largely conquered since, were invented long before the telephone was, and were waiting here on earth all ready to slam it when Bell came along. Bell lectured at Lawrence, Mass., one evening in May, and I prepared to furnish him with the usual program from the laboratory in Boston.

City Hall, Lawrence, Mass.

Monday Evening, May 28.

THE MIRACLE.

WONDERFUL TELEPHONE DISCOVERY OF THE AGE.

Prof. A. Graham Bell, assisted by Mr. Frederic A. Gower, will give an exhibition of his wonderful and miraculous discovery, The Telephone, before the people of Lawrence as above, when Boston and Lawrence will be connected via the Western Union Telegraph, and vocal and instrumental music and conversation will be transmitted a distance of 27 miles and received by the audience in the City Hall.

Prof. Bell will give an explanatory lecture with this marvelous exhibition. Cards of Admission, 35 cents.

Reserved seats, 50 cents.

Sale of seats at Stratton's will open at 9 o'clock.

But the wire the company assigned us was the worst yet. It worked fairly well when we tried it in the afternoon, but in the evening every station on the line had evidently cut in its relay, and do my best I couldn't get a sound through to the hall.

Mr. Fisher returned this morning. He says that Watson, the organist, and himself occupied the laboratory, sitting in their shirt sleeves with their collars off. Watson shouted his lungs into the telephone mouthpiece, "Gower, Gower, Gower, Hoy! Hoy! Hoy!" and receiving no response inquired of Fisher if he pardoned for a little "hamburg edging" on his language. Mr. Fisher endeavored to transmit to his Lawrence townsman the tune of "Federal Street," played upon the cornet, but the air was not distinguishable here. About 10 p. m. Watson discovered the "Northern Lights" and found his wires alive with lightning which was not included in the

original scheme of the telephone. He says the loose electricity abroad in the world was too much for him.

The next morning a poem appeared in the *Lawrence paper*. The writer must have sat up all night to write it. It was entitled, "Waiting for Watson," and as I am very proud of the only poem I ever had written about me, I am going to ask your permission to read it. Please notice the great variety of human feeling the poet put into it. It even suggests missiles, though it flings none.

Lawrence, Mass., "Daily American,"

Tuesday, May 29, 1877.

WAITING FOR WATSON.

To the great hall we strayed,
Fairly our fee we paid,
Seven hundred there delayed,
But, where was Watson?
Was he out on his beer?
Walked he off on his ear?
Something was wrong, 'tis clear,
What was it, Watson?
Seven hundred souls were there,
Waiting with stony stare,
In that expectant air—
Waiting for Watson.
Oh! how our ears we strained,
How our hopes waxed and waned,
Patience to dregs we drained,
Yes, we did, Watson!
Softly the bandmen played,
Rumbled the Night Brigade,
For this our stamps we paid,
Only this, Watson!
But, Hope's by fruitage fed,
Promise and Act should wed,
Faith without works is dead,
Is it not, Watson?
Give but one lusty groan,
For bread we'll take a stone,
Ring your old telephone!
Ring, Brother Watson!
Doubtless 'tis very fine,
When, all along the line,
Things work most superfluous—
Doubtless 'tis, Watson.
Let's hear the thrills and thrums
That your skilled digit drums,
Striking our tympanums—
Music from Watson.
We know that, every day,
Schemes laid to work and pay,
Fail and "gang aft a-gley"—
Often, friend Watson.
And we'll not curse, or fling,
But, next time, do the thing
And we'll all rise and sing
"Bully for Watson!"
Or, by the unseen powers,
Hope in our bosom sours,
No telephone in ours,—
"Please, Mr. Watson."

But my vacation was about over. Besides raising the wind, the lectures had stirred up a great demand for telephone lines. The public was ready for the telephone long before we were ready for the public, and this pleasant artistic interlude had to stop. I was needed in the shop to build some telephones to satisfy the insistent demand. Fred Gower, a young newspaper man of Providence, had become interested with Mr. Bell in the lecture work. He had an unique scheme for a dual lecture with my illustrations sent from a central point to halls in two cities at the same time. I think my last appearance in public was at one of these dualities. Bell lectured at New Haven and Gower gave the talk at Hartford, while I was in between at Middletown, Conn., with my apparatus, including my songs. It didn't work very well. The two lecturers didn't speak synchronously. Gower told me afterwards that I was giving him "How do you do," when he wanted "Hold the Fort," and Bell said I made it awkward for him by singing "Do Not Trust Him, Gentle Lady," when he needed the trombone solo.

In the following August, Professor Bell married and went to England, taking with him a complete set of up-to-date telephones, with which he intended to start the trouble in that country. Fred Gower became so fascinated with lectur-

ing on the telephone that he gave up an exclusive right Mr. Hubbard had granted him for renting telephones all over New England, for the exclusive privilege of using the telephone for lecture purposes all over the United States. But it wasn't remunerative after Bell and I gave it up. The discriminating public preferred Mr. Bell as a speaker—and I always felt that the singing never reached the early heights.

Gower went to England later. There he made some small modification of Bell's telephone, called it the "Gower-



A. S. HIBBARD AND E. M. BARTON AT WESTERN ELECTRIC.

Bell" telephone and made a fortune out of his hyphenated atrocity. Later he married Lillian Nordica, although she soon separated from him. He became interested in ballooning. The last scene in his life before the curtain dropped showed a balloon with one man in it drifting low down over the waters of the English channel. A fishing boat hails him, "Where are you bound?" Gower's voice replies, "To London." Then the balloon and its pilot drifted into the mist forever.

As I said, I went back to work, and my next two years was a continuous performance. It began to dawn on us that people engaged in getting their living in the ordinary walk of life couldn't be expected to keep the telephone at their ear all the time waiting for a call, especially as it weighed about ten pounds, then, and was as big as a small packing case, so it devolved on me to get up some sort of a call signal.

Williams on his line used to call by thumping the diaphragm through the mouthpiece with the butt of a lead pencil. If there was someone close to the telephone at the other end, and it was very still it did pretty well, but it seriously damaged the vitals of the machine and therefore I decided it wasn't really practical for the general public; besides we might have to supply a pencil with every telephone and that would be expensive. Then I rigged a little hammer inside the box with a button on the outside. When the button was thumped the hammer would hit the side of the diaphragm where it could not be damaged, the usual electrical transformation took place and a much more modest, but still unmistakable thump would issue from the telephone at the other end.

That was the first calling apparatus ever devised for use with the telephone, not counting Williams' lead pencil, and several with that attachment were put into practical use. But the exacting public wanted something better and I devised the Watson "Buzzer"—the only practical use we ever made of the har-

monic telegraph relics. Many of these were sent out. It was a vast improvement on the Watson "Thumper," but still it didn't take the popular fancy. It made a sound quite like the horse-radish grater automobile signal we are so familiar with now-a-days, and aroused just the same feeling of resentment that does. It brought me only a fleeting fame for I soon superseded it by a magneto-electric call bell that solved the problem, and was destined to make a long-suffering public turn cranks for the next fifteen years or so, as it never had before, or ever will hereafter.

Perhaps I didn't have any trouble with the plaguey thing! The generator part of it was only an adaptation of a magneto shocking machine I found in Davis' Manual of Magnetism and worked well enough, but I was guilty of the jingling part of it. At any rate I felt guilty when letters began to come from our agents reciting their woes with the thing, which they said had a trick of sticking and failing on the most important occasions to tinkle in response to the frantic crankings of the man who wanted you. But I soon got it so it behaved itself and it has been good ever since, for Chief Engineer Carty told me the other day that nothing better has ever been invented, that they have been manufactured by the millions all over the world, and that identical jingler today does practically all the world's telephone calling.

For some reason, my usual good luck I presume, the magneto call bells didn't get my name attached to them. I never regretted this for the agents, impressed by the long and narrow box in which the mechanism was placed, promptly christened them "Williams' Coffins." I always thought that a narrow escape for me!

The first few hundreds of these call bells were a continuous shock to me for other reasons than their failure to respond. I used on them a switch that had to be thrown one way by hand, when the telephone was being used, and then thrown back by hand to put the bell in circuit again. But the average man or woman wouldn't do this more than half the time, and I was obliged to try a series of devices, which culminated in that remarkable achievement of the human brain—the automatic switch—that only demanded of the public that it should hang up the telephone after it got through talking. This the public learned to do quite well after a few years' practice.

You wouldn't believe me if I should tell you a tithe of the difficulties we got into by flexible cords breaking inside the covering, when we first began to use hand telephones!

Then they began to clamor for switchboards for the first centrals, and individual call bells began to keep me awake nights. The latter was very important then, for such luxuries as one-station lines were scarce. Six or eight stations on a wire was the rule, and we were trying hard to get a signal that would call one station without disturbing the others. All these and many other things had to be done at once, and, as if this was not enough, it suddenly became necessary for me to devise a better transmitter. The Western Union people discovered that the telephone was not such a toy as they had thought, and as our \$100,000 offer was no longer open for acceptance, they decided to get a share of the business for themselves, and Edison evolved for them his carbon-button transmitter. This was the hardest blow yet.

We were still using the magneto transmitter, although Bell's patent clearly covered the better transmitter. Our transmitter was doing much to develop the American voice and lungs, making them powerful but not melodious. This was, by the way, the telephone epoch when they used to say that all the farmers waiting in the country grocery would rush out and hold their horses when they saw any one preparing to use the telephone. Edison's transmitter talked louder than the magnetos we were using.

Our agents began to clamor for them and I had to work nights to get up something just as good. Fortunately for my constitution, Frank Blake came along with his transmitter. We bought it and I got a little sleep for a few days. Then our little David of a corporation sued that big Goliath, the Western Union Company for infringing the Bell patents and I had to devote my leisure to testifying in that suit, and making reproductions of the earliest apparatus to prove to the court that they would really talk and were not a bluff as our opponents were asserting.

Then I put in the rest of my leisure in making trips among our agents this side of the Mississippi to bring them up to date and see what the enemy were up to. I kept a diary of those trips. It reads funnily today, but I won't go into that. It would detract from the seriousness of this discourse.

Nor must I forget an occasional diversion in the way of a sleet storm which, combining with our wires then beginning to fill the air with house-top lines and pole lines along the sidewalks, would make things extremely interesting for all concerned. I don't remember ever going out to erect new poles and run wires after such a catastrophe, I think I must have done so, but such a trifling matter naturally would have made but little impression upon me.

Is it any wonder that my memory of those two years seems like a combination of the Balkan war, the rush hours on the subway and a panic on the stock market?

I was glad I was not treasurer of the company, although I filled about all the other offices during those two years. Tom Sanders was our treasurer, and a mighty good one he made. Had it not been for his pluck and optimism, we might all of us have failed to attain the prosperity that came to us later. The preparation of this paper has aroused in me many delightful memories, but with them has been mixed sad thoughts, too, for friends who have gone. Joyful Tom Sanders! How everybody loved him! No matter how discouraging the outlook was, the skies cleared whenever he came into the shop. I can hear his ringing laugh now!

It was a red letter day for me when he hired the first bookkeeper the telephone business ever had—the keen, energetic, systematic Robert W. Devonshire. You must not forget "Dev." I never shall, for after he came I didn't have to keep the list of telephone leases in my head any more.

Then Thomas D. Lockwood was hired to take part of my engineering load, but he developed such an extraordinary faculty for comprehending the intricacies of patents and patent law that our lawyers captured him very soon, and kept him at their work until he practically captured their job. And how proud I was when the company could afford the extravagance of a clerk for me. He is still

working for the company—Mr. George W. Pierce.

I suppose I did have some fun during this time, but the only diversion that lingers in my mind is arranging telephones in a diver's helmet for the first time, and, finding that the diver could not hear when he was under water, going down myself to see what the matter was. I still feel the pathos of the moment, when, arrayed for the descent, just before I disappeared beneath the limpid waters of Boston harbor, my usually undemonstrative assistant put his arm around my inflated neck and kissed me on the glass plate.

But matters soon began to straighten out—the clouds gradually cleared away. The Western Union tornado ceased to rage, and David found to his delight that he had hit Goliath squarely in the forehead with a rock labeled Patent No. 174465. Then for the first time stock in



ONE OF THE BADGES WORN BY ATTENDANTS WHO SERVED PIONEERS' BANQUET.

the Bell Company began to be worth something on the stock market.

Something else happened about that time fully as important. The company awoke to the fact that the Watson generator was overloaded, and that it ought to get a new dynamo. Watson could still hold up the engineering end perhaps, but we must have a business manager. President Hubbard said he knew just the man for us—a thousand horse power steam engine wasting his abilities in the United States railway mail service and he sent me down to Washington to investigate and report.

I must have been impressed, for I telegraphed to Mr. Hubbard to hire the man if he could raise money enough to pay his salary. He did so. This was one of the best things I ever helped to do. When the new manager came to work a short time later, he said to me: "Watson, I want my desk alongside of yours for a few months until I learn the ropes." But the balance of the conceit that previous two years had not knocked out of me vanished, when in about a fortnight, I found he knew all I had learned, and that at the end of a month I was toddling along in the rear trying to catch up, which I never did. He has still quite an important position in the

business. His name is Vail. May his light never dim for many and many a year!

The needs of the new business attracted other men with good ideas who entered our service, such men as Emile Berliner and George L. Anders and many others. Every agency became a center of inventive activity, each with its special group of ingenious, thinking men—every one of whom contributed something and sometimes a great deal to the improvement of apparatus or methods. I remember particularly Ed. Gilliland, of Indianapolis, an ingenious man and excellent mechanic, who improved the generator of my magneto call bell, shortening the box and making it less funereal.

He did much also for central-office switchboards.

This was the beginning of the great wave of telephonic activity not only in electrical and mechanical invention, but also in business and operative organization, which has been increasing in its force ever since, to which men in this audience have made and are making splendid contributions. Today that wave has become a mighty flood on which the great Bell system floats majestically as it moves ever onward to new heights.

My connection with the telephone business ceased in 1881. The strenuous years I passed through had fixed in me a habit of not sleeping nights as much as I should, and a doctor man told me I would better go abroad for a year or two for a change. There was not the least need of this, but as it coincided exactly with my desires and as the telephone business had become, I thought, merely a matter of routine, with nothing more to do except pay dividends and fight infringers, I resigned my position as General Inspector of the Company and went over the ocean for the first time.

When I returned to this country a year or so later, I found the telephone business had not suffered in the least from my absence, but there were so many better men doing the work that I had been doing, that I didn't care to go into it again.

I was looking for more trouble in life and so I went into shipbuilding, where I found all I needed.

Before Mr. Bell went to England on his bridal trip, we agreed that as soon as the telephone became a matter of routine business he and I would begin experimenting on flying machines, on which subject he was full of ideas at that early time. I never carried out this agreement. Bell did some notable work on air ships later, but I turned by attention to battleships.

Such is my very inadequate story of the earliest days of the telephone, so far as they made part of my life. Today when I go into a central office or talk over a long-distance wire or read the annual report of the American Telephone and Telegraph Company, filled with figures up in the millions and even billions, when I think of the growth of the business, and the marvelous improvements that have been made since the day I left it, thinking there was nothing more to do but routine, I must say that all that early work I have told you about seems to shrink into a very small measure, and, proud as I always shall be, that I had the opportunity of doing some of that earliest work myself, my greatest pride is that I am one of the great army of telephone men, every one of whom has played his part in making the Bell Telephone service what it is today.

Pioneers of the Telegraph

It is fitting that in this Pioneer Edition of BELL TELEPHONE NEWS, which contains a full account of the convention of the Telephone Pioneers of America, mention should be made of Chicago's Pioneers of the Telegraph.

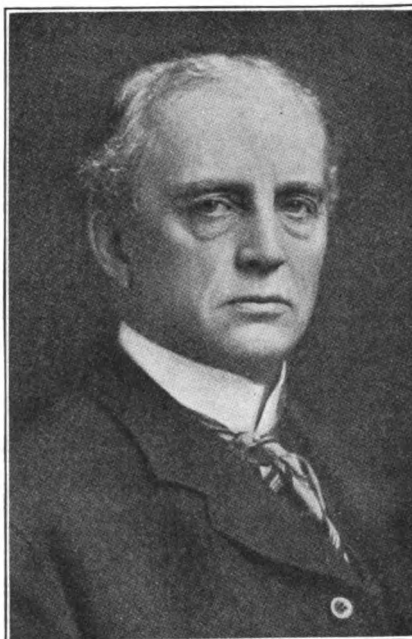
Saturday, October 25, 1913, was the sixty-fifth anniversary of the completion of the first telegraph line into Chicago. Sixty-five years ago, with bands playing and amidst general rejoicing, the wires were strung on South Clark street and the first messages transmitted. The first telegraph office was at the southeast corner of Clark and Randolph streets, where the Ashland building now stands.

The men who were active in the telegraph business in 1848 have passed on, but there are a number who later were prominent in the development of the telegraph in Chicago who are active in the present day activities of the city. Among these are Bernard E. Sunny, who was successively operator, night manager and manager for the Atlantic and Pacific Telegraph Company from 1875 to 1879, and is now President of the Central Group of Bell Telephone Companies; Professor John P. Barrett, under whose direction the first fire alarm telegraph and police system was operated in 1865; Enos M. Barton, who was the founder of the Western Electric Company and has seen his creation grow to enormous proportions with branches throughout the world; F. H. Tubbs, for many years the superintendent of the Western Union Telegraph Company, now retired; and W. E. Bell, now division commercial superintendent of the American Telephone and Telegraph Company.

Official Registration.

The following members attended the Third Annual Convention of the Telephone Pioneers of America. The names as printed are in the order of registration:

B. E. Sunny, Chicago.
Alonzo Burt, Chicago.
Henry W. Pope, New York.
Charles E. Mosley, Chicago.
H. F. Hill, Chicago.
Theodore N. Vail, New York.
S. J. Larned, Chicago.
W. M. Fryer, Wheaton, Ill.
R. C. Luepke, Chicago.
W. J. Malden, Chicago.
H. W. Bellard, Denver.
E. S. Holmes, Chicago.
A. S. Hibbard, New York.
Robert Cline, Chicago.
V. R. Lanestrem, Chicago.
G. J. Brett, Detroit.
H. J. Booth, Chicago.
A. S. R. Smith, Chicago.
Samuel Bowsher, Chicago.
R. J. Ruttle, Chicago.
Fred R. Atwood, Chicago.
J. J. O'Connell, Chicago.
O. J. Holbrook, Chicago.
W. J. Boyd, Chicago.
George Duffy, Chicago.
E. P. Vette, Chicago.
A. C. Gallagher, Oshkosh, Wis.
Howard B. Emery, Boston.
William Donaldson, Chicago.
Cecil W. Mackenzie, Buffalo, N. Y.
Harry A. Knoll, Buffalo, N. Y.
H. C. Aldrich, Buffalo, N. Y.
J. M. Walsh, Buffalo, N. Y.
P. St. Peter, Chicago.
B. F. Rand, Chicago.
Catherine Moore, Chicago.
C. C. Prince, Chicago.
A. J. McGee, Chicago.
C. L. DePue, Chicago.
J. O. Stockwell, Chicago.
J. H. Riddel, Chicago.
W. E. Bell, Chicago.
Edwin F. Snyder, Chicago.
Herbert H. Lovell, Chicago.
Albert P. Allen, Chicago.
Arthur H. Ford, Chicago.
T. P. Ryan, Chicago.



E. M. BARTON, 1876.

Elbert G. Drew, Chicago.
Helen J. Masterson, Chicago.
F. V. Warner, Chicago.
M. J. Carney, Chicago.
E. H. Bangs, Chicago.
A. G. Francis, Chicago.
W. Rufus Abbott, Chicago.
Otto G. Hild, Chicago.
C. E. Gardner, Detroit.
Price Evans, Detroit.
Anna T. Masterson, Chicago.
Harriet M. Binmore, Chicago.
Norton E. Westlake, Cincinnati.
P. W. O'Brien, Leavenworth, Kan.
Norman Anderson, Cleveland, O.
J. T. Martin, Buffalo, N. Y.
Thomas D. Lockwood, Boston.
Martin Joyce, Oswego, N. Y.
Theodore L. Liesinger, Buffalo, N. Y.
Margaret M. Hyatt, Chicago.
F. E. Judson, Chicago.
Mary J. Gannon, Buffalo, N. Y.
Emil E. Palm, Montreal.
W. H. Winter, Montreal.
N. H. Hutton, Richmond, Ind.
J. J. Welch, Buffalo, N. Y.
P. O. Jacobs, Buffalo, N. Y.
E. B. Scott, Chicago.
H. J. Matteson, Chicago.
E. A. Woelk, Belleville, Ill.
George F. Holden, Chicago.



W. E. BELL, 1890.

Thomas Snelling, Chicago.
J. T. Broderick, Chicago.
T. E. Freeman, Chicago.
Frank E. Leonard, Chicago.
H. B. Hoopes, Philadelphia.
Edwin Wibley, Chicago.
A. T. Smith, Toronto.
Thomas Boland, Milwaukee.
J. W. Stearns, Jamestown, N. Y.
James W. Gillespie, Harrisburg, Pa.
C. T. Earley, Olean, N. Y.
H. E. Allen, Dayton, O.
R. T. McComas, Cincinnati, O.
P. Yensen, Cleveland, O.
F. W. Dolan, Peterboro, Ont.
W. G. Luscombe, Chicago.
Catherine Quinn, Chicago.
DeLoss Odell, Springfield, O.
Elizabeth A. Hamilton, Chicago.
Cora B. Erick, Chicago.
J. S. Glen Edwards, Johnstown, N. Y.
John Morris, Buchanan, Mich.
H. A. Mott, Chicago.
W. D. Crawford, Tiffin, O.
Rockwell L. Holden, Chicago.
Parker Spencer, Chicago.
Mrs. Mary Regan, Chicago.
Ernest Allen, Chicago.
John C. Welsert, Chicago.
Anna B. Raymond, Chicago.
A. R. Bone, Chicago.
Arthur L. Gedney, Chicago.
C. L. Oviatt, Enosburg Falls, Vt.
C. H. Rottger, Springfield, Ill.
Charles A. Stone, Chicago.
W. J. Speer, Chicago.
F. C. Mason, New York.
J. A. MacCrellich, Trenton, N. J.
J. Albert McCabe, Boston.
Alonzo W. Tuttle, Boston.
A. P. Hyatt, Chicago.
W. H. Badour, St. Joseph, Mich.
J. M. Clifford, Manistee, Mich.
Thomas S. Brown, Galesburg, Ill.
Frank H. McCann, Oklahoma City, Okla.
C. B. Smith, Atlantic City, N. J.
Leland Hume, Nashville, Tenn.
A. S. Garrett, Little Rock, Ark.
Mrs. Charles E. Hall, Omaha, Neb.
J. V. Graft, Buffalo, N. Y.
C. H. Brownell, Peru, Ind.
Thomas A. Watson, East Braintree, Mass.
John W. Cherry, Devil's Lake, Mich.
H. J. Schultz, New York.
Mrs. Olive McClelland, St. Louis, Mo.
Miss Frances L. Overbeck, St. Louis, Mo.
R. N. Litton, Chicago.
George A. Hall, Jr., Boston.
Frederick A. Forbes, Detroit.
Margaret Woods, Detroit.
Estelle McGraw, Detroit.
William Hughes, Chicago.
W. G. Betty, Cincinnati, O.
J. E. Culbertson, Cincinnati, O.
W. H. Adkins, Atlanta, Ga.
Henry G. Bates, New York.
R. B. Hoover, Springfield, O.
C. L. McNaughton, Chicago.
Samuel Morris, Grand Rapids, Mich.
Thomas T. Ramsdell, Buffalo, N. Y.
G. E. McFarland, San Francisco, Cal.
William B. T. Belt, Omaha, Neb.
Abram Milne Ramsay, Chicago.
J. H. Stuart, Chicago.
Irving S. Hoffman, Columbus, O.
William K. Boardman, Nashville, Tenn.
E. E. Ranney, Cleveland, O.
A. J. Mellen, Toledo, O.
J. P. McGahan, Cleveland, O.
Thomas Dusenbury, Paterson, N. J.
F. Swaney, East Liverpool, O.
W. M. Bailey, Richmond, Va.
Louis A. Holm, New York.
A. Johnson, New York.
P. Kerr Higgins, Waco, Tex.
Charles W. McDaniel, Kansas City, Mo.
E. P. Platt, Grand Rapids, Mich.
A. L. Piper, Buffalo, N. Y.
John O'Rourke, Brooklyn, N. Y.
T. V. Fitzpatrick, Brooklyn, N. Y.
W. J. Berry, Detroit, Mich.
J. E. Farnsworth, Dallas, Tex.
C. L. Boyce, Detroit.
J. H. Passman, Chicago.
Fred J. Holdsworth, Chicago.
Fred Beckman, Bloomington, Ill.
H. J. Curl, Kansas City, Mo.
M. J. Burns, Lowell, Mass.
J. L. W. Zietlow, Aberdeen, S. Dak.
Ben S. Read, Kansas City, Mo.
F. B. Uhrig, Kansas City, Mo.
J. S. McQuarrie, New York.
S. T. Huebner, Burlington, Ia.
T. Eugene Smith, Elmira, N. Y.
W. F. Sherwood, Mt. Vernon.
J. E. Halligan, Quincy, Ill.
J. B. McMillin, Decatur, Ill.
F. W. Harrington, New York.
F. H. Bethell, New York.
James Beamer, Detroit.
B. A. Kaiser, New York.
John A. Seely, New York.
C. J. Leslie, Toronto.
W. T. Westbrook, Jr., Philadelphia.
W. L. Richards, New York.
J. H. Cline, Columbus, O.
H. F. Thurber, New York.
L. C. Wintermute, Wilkesbarre, Pa.
James M. Woomer, Scranton, Pa.
Robert B. Hopkins, Boston.



PRIZE-WINNING FLOAT OF CHICAGO TELEPHONE COMPANY AT SOUTH CHICAGO.

Entered in Industrial Parade of South Chicago Commercial Association October 8th. The float was designed and prepared by the Publicity Department.

P. J. Skolsky, Eau Claire, Wis.
 Charles H. Wilson, New York.
 E. W. Brown, Chicago.
 J. W. Nicholl, Keokuk, Ia.
 S. H. Meyers, Bridgeton, N. J.
 A. J. Sheridan, Chicago.
 J. W. Ladd, New Haven, Conn.
 John J. Ghegan, New York.
 C. E. Graham, New Haven.
 William P. Morris, Indianapolis, Ind.
 E. B. Field, Jr., Denver, Col.
 E. B. Field, Denver, Col.
 Philip Hamlin, Denver, Col.
 E. L. Taylor, Fort Wayne, Ind.
 C. L. Mason, Peekskill, N. Y.
 P. H. Starrett, New York.
 George K. Manson, New York.
 R. A. Leonard, Chicago.
 B. A. Oliver, Racine, Wis.
 G. G. Volkmar, New York.
 John M. Moran, St. Louis.
 W. J. Walker, Milwaukee, Wis.
 Augusta Allendorf, Harvard, Ill.
 Rosalind A. Cheney, Buffalo, N. Y.
 Catherine G. Collins, Buffalo, N. Y.
 Mary C. Wait, Buffalo, N. Y.
 Henry O. Higgins, Brooklyn, N. Y.
 George T. Jones, Joliet, Ill.
 Charles B. Doolittle, New Haven, Conn.
 George W. Hopf, Chicago.
 Mrs. A. V. Freeman, Woodbridge, N. J.
 R. D. Hall, Denver, Col.
 Mrs. R. D. Hall, Denver, Col.
 Miss M. Simmons, New York.
 Miss A. Greenslade, Bayonne, N. J.
 P. J. McManus, New Haven, Conn.
 Thomas M. Carter, Brooklyn, N. Y.
 Enos M. Barton, Chicago.
 H. F. Stevens, New York.
 Louis H. Hershner, St. Louis.
 Frank P. Cook, Chicago.
 Otis H. Carter, Milwaukee, Wis.
 A. S. Sallor, Chicago.
 William A. Volkmar, New York.
 A. L. Salt, New York.
 W. E. Huntington, New York.
 H. Weichsel, Chicago.
 H. J. Baumann, Dundee, Ill.
 John M. Noble, Oklahoma City, Okla.
 E. B. Baker, Minneapolis, Minn.
 T. J. Dwyer, Minneapolis, Minn.
 W. T. Westbrook, Philadelphia, Pa.
 L. M. Davenport, Jersey City, N. J.
 F. L. Carricross, Albany, N. Y.
 J. H. Mehaffey, Washington, Del.
 K. M. Schmitt, New York.
 H. Louis Hoffman, St. Louis, Mo.
 Charles S. Holt, Chicago.
 Dora E. Ulrich, Brooklyn, N. Y.
 Mamie Devlin, New York.
 J. W. Christie, Omaha.
 R. L. Yearsley, Chicago.
 K. B. Pettitt, New York.
 M. M. Walker, New York.
 C. A. Wallace, New York.
 J. S. Mott, New York.
 W. J. Bogardus, Joliet.
 H. G. Webster, Chicago.
 Edward Pelletier, Chicago.
 Thomas B. Doolittle, Pine Orchard, Conn.
 Sue E. Hoffman, Cairo, Ill.
 Charles A. Janke, Camden, N. J.
 U. F. Cleveland, Chicago.

W. H. Hyde, Milwaukee, Wis.
 Walter A. Wright, Newport, R. I.
 E. J. Houlihan, Albany, N. Y.
 Rose Scullin, Albany, N. Y.
 Philip P. Creed, Milwaukee, Wis.
 Thomas Berry, Milwaukee, Wis.
 P. Strichter, Chicago.
 John P. Driscoll, Chicago.
 J. G. Price, Indianapolis.
 Edwin H. Smythe, Chicago.
 William Hubbard, Elgin, Ill.
 Frank D. Laurie, Chatham, Ont.
 J. McDonald, Chicago.
 U. N. Bethell, New York.
 O. S. Morse, Springfield, Ill.
 M. J. Hayden, New York

English Troubles Acute

The quarrel between the General Post Office of England and the Parliamentary Telephone Committee, which has been going on for a couple of months, has reached its climax through the publication of the correspondence that has been carried on between the committee and Herbert Samuel, M. P., the Postmaster General.

The contents of most of the letters are technical or pertain to conditions which are merely of local interest, but here is an extract from the committee's first letter, which contains matter of interest to people wherever there seems to be a movement on foot for the transferring of privately-owned lines to State ownership—a change which was made in England a couple of years ago, and the complaints against which are now stirring the British public as represented by the committee:

"Great Britain remains in a position as regards effective telephone service in proportion to its population, inferior not only to such countries as the United States and Canada, but even to such similar countries as Denmark and Sweden. The rapid transmission of intelligence is now a commercial necessity of the first importance, and we see in the continued inferiority of our telephone service a serious handicap to our commercial progress. Not only are we seriously behind our commercial rivals, but we are not doing sufficient to improve our position in respect of them.

"The expenditure on construction of trunk lines has fallen by one-third, from

£371,000 to £225,000, in 1912, although new lines are urgently required to attract new subscribers and to increase the efficiency of the service by reducing delay in the trunk service. The number of new circuits added has also fallen, and this in spite of the fact that the natural demand for trunk services has increased with the number of local subscribers. The result has been to cripple the usefulness of the service and to prevent its normal expansion.

"In 1903 the rate of increase of telephones was over thirty per cent, but it has steadily declined until now in London the increase is only seven per cent. This result compares most unsatisfactorily with the great cities of America, where in San Francisco the increase is twenty-four per cent., in Montreal, eighteen per cent., and in Chicago fifteen per cent. The total increase in telephones last year in the United Kingdom was only 38,000, as compared with 749,000 in the United States, which was much greater than the whole telephone service of this country.

"We should, on a basis of population, have 3,000,000 telephones in England instead of 600,000 if we were to be proportionately in the same position as the United States, but at the present rate of increase it would take us fifty years to reach that position. We are so convinced of the vital necessity for restoring public confidence in the telephone service and increasing its efficiency that we ask you to consent to the appointment of a select committee to consider this year the question of rates, and next year the whole organization and administration of the telephone system.

"If it is not possible to have such an inquiry here conducted by a select committee of the House of Commons, we suggest the formation of a permanent advisory committee representing the business interests of the subscribers in order to help the Post Office to meet the needs of the subscribers."—*New York Times*.

Gymnastics on the Roof

On Saturday morning, while calling at the General Offices in Chicago, many of the Pioneers visited the roof garden on the twenty-second floor, where the students of the operators' school were going through their gymnastic drill.

The spacious roof gives opportunity for a splendid drill, and the various movements with marching and counter marching were cheered with enthusiasm by the guests present. The students under Miss Hoggins' leadership enjoyed the pleasure of being observed by such a distinguished company and cheered heartily for Mr. Hibbard, Mr. Frank Bethel, Mr. Thayer, Mr. Thurber, Mr. Abbott, Mr. and Mrs. Pettingill, Mr. Hiss, Mr. and Mrs. Larned and Mr. Foster, ending all with a "Pioneer yell."

Wireless Versus Telephone

One of the officials of the Chicago Telephone Company took a lake trip this summer with his wife and little girl. Out on the *Northland* it occurred to them it would be a pleasant surprise for the aunt at home to get a wireless message. It was duly sent and after their return, the little girl asked her aunt how she liked getting a "wireless!" "Why, I didn't get a wireless, I just had a call from the office saying you were all right." So does the ready telephone step in and eclipse even the wonders of the wireless.

2 Sheets—Sheet 1.

A. G. BELL.
TELEGRAPHY.

No. 174,465.

Patented March 7, 1876

Fig. 1.

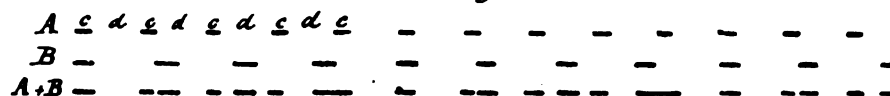


Fig. 2.

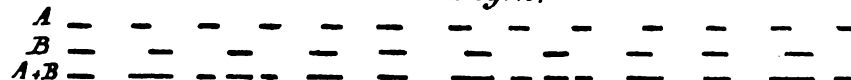


Fig. 3.

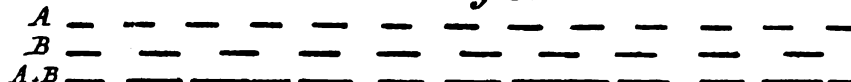


Fig. 4.

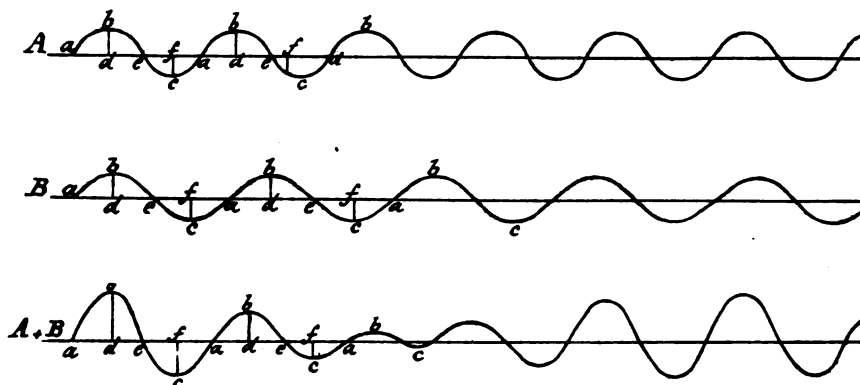
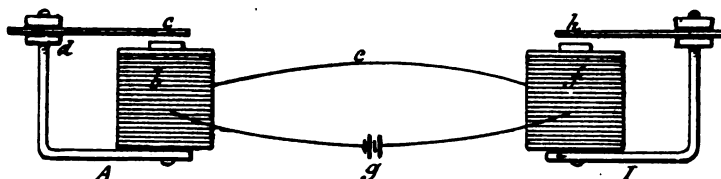


Fig. 5.



Witnesses:

Charles A. Dick,
H. J. Hutchinson

Inventor:

A. Graham Bell
by atty. John S. May

SHEET NO. 1 OF DIAGRAMS FILED WITH BELL'S ORIGINAL APPLICATION FOR
 TELEPHONE PATENT. FACSIMILE FROM UNITED STATES
 PATENT OFFICE REPORT.

2 Sheets—Sheet 2.

A. G. BELL.
TELEGRAPHY.

No. 174,465.

Patented March 7, 1876.

Fig 6.

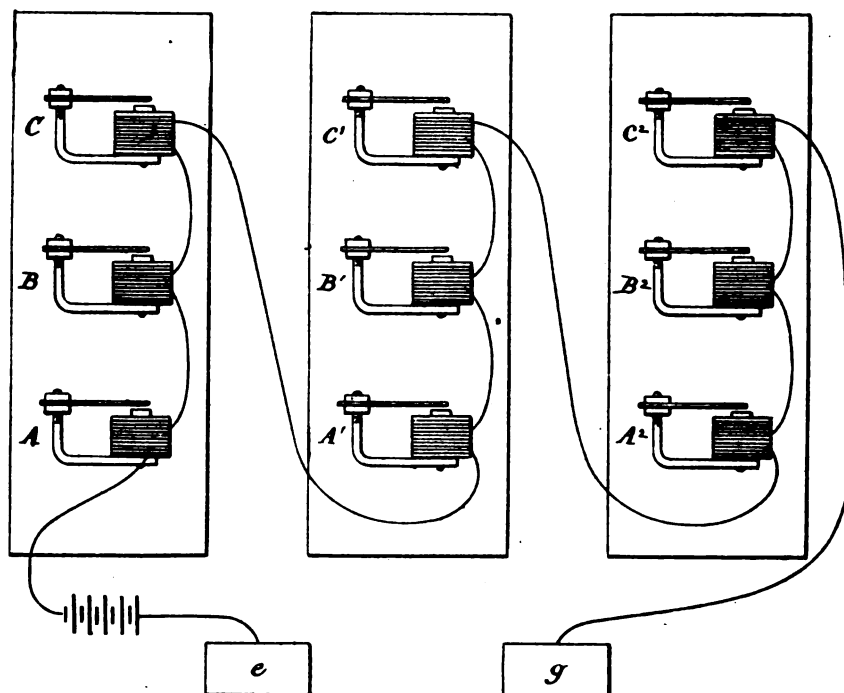
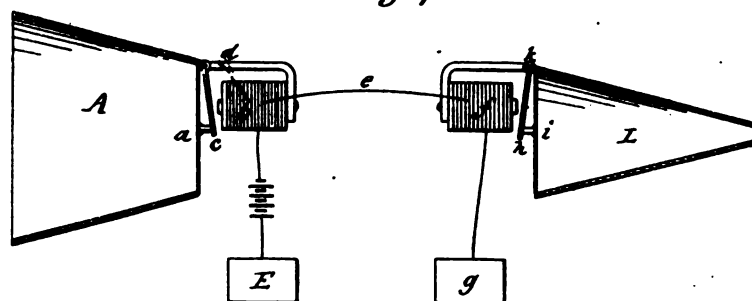


Fig. 7



Witnesses

Charles A. Smith
H. J. Hutchinson

Inventor.

A. Graham Bell
by atty. Robert Bailey

SHEET NO. 2 OF DIAGRAMS FILED WITH BELL'S ORIGINAL APPLICATION FOR
TELEPHONE PATENT. FACSIMILE FROM UNITED STATES
PATENT OFFICE REPORT.

UNITED STATES PATENT OFFICE.

ALEXANDER GRAHAM BELL, OF SALEM, MASSACHUSETTS.

IMPROVEMENT IN TELEGRAPHY

Specification forming part of Letters Patent No. 174,465, dated March 7, 1876; application filed February 14, 1876.

To all whom it may concern:

Be it known that I, ALEXANDER GRAHAM BELL, of Salem, Massachusetts, have invented certain new and useful Improvements in Telegraphy, of which the following is a specification:

In Letters Patent granted to me April 6, 1875, No. 161,739, I have described a method of, and apparatus for, transmitting two or more telegraphic signals simultaneously along a single wire by the employment of transmitting-instruments, each of which occasions a succession of electrical impulses differing in rate from the others; and of receiving-instruments, each tuned to a pitch at which it will be put in vibration to produce its fundamental note by one only of the transmitting-instruments; and of vibratory circuit-breakers operating to convert the vibratory movement of the receiving-instrument into a permanent make or break (as the case may be) of a local circuit, in which is placed a Morse sounder, register, or other telegraphic apparatus. I have also therein described a form of autograph-telegraph based upon the action of the above-mentioned instruments.

In illustration of my method of multiple telegraphy I have shown in the patent aforesaid, as one form of transmitting-instrument, an electro-magnet having a steel-spring armature, which is kept in vibration by the action of a local battery. This armature in vibrating makes and breaks the main circuit, producing an intermittent current upon the line-wire. I have found, however, that upon this plan the limit to the number of signals that can be sent simultaneously over the same wire is very speedily reached; for, when a number of transmitting-instruments, having different rates of vibration, are simultaneously making and breaking the same circuit, the effect upon the main line is practically equivalent to one continuous current.

In a pending application for Letters Patent, filed in the United States Patent Office February 25, 1875, I have described two ways of producing the intermittent current—the one by actual make and break of contact, the other by alternately increasing and diminishing the intensity of the current without actu-

ally breaking the circuit. The current produced by the latter method I shall term, for distinction sake, a pulsatory current.

My present invention consists in the employment of a vibratory or undulatory current of electricity in contradistinction to a merely intermittent or pulsatory current, and of a method of, and apparatus for, producing electrical undulations upon the line-wire.

The distinction between an undulatory and a pulsatory current will be understood by considering that electrical pulsations are caused by sudden or instantaneous changes of intensity, and that electrical undulations result from gradual changes of intensity exactly analogous to the changes in the density of air occasioned by simple pendulous vibrations. The electrical movement, like the aerial motion, can be represented by a sinusoidal curve or by the resultant of several sinusoidal curves.

Intermittent or pulsatory and undulatory currents may be of two kinds, accordingly as the successive impulses have all the same polarity or are alternately positive and negative.

The advantages I claim to derive from the use of an undulatory current in place of a merely intermittent one are, first, that a very much larger number of signals can be transmitted simultaneously on the same circuit; second, that a closed circuit and single main battery may be used; third, that communication in both directions is established without the necessity of special induction-coils; fourth, that cable dispatches may be transmitted more rapidly than by means of an intermittent current or by the methods at present in use; for, as it is unnecessary to discharge the cable before a new signal can be made, the lagging of cable-signals is prevented; fifth, and that as the circuit is never broken a spark-arrester becomes unnecessary.

It has long been known that when a permanent magnet is caused to approach the pole of an electro-magnet a current of electricity is induced in the coils of the latter, and that when it is made to recede a current of opposite polarity to the first appears upon the wire. When, therefore, a permanent magnet is caused to vibrate in front of the pole of an electro-magnet an undulatory current of electricity is induced in the coils of the electro-magnet, the

FACSIMILE OF BELL'S ORIGINAL TELEPHONE PATENT NO. 174,465.

undulations of which correspond, in rapidity of succession, to the vibrations of the magnet, in polarity to the direction of its motion, and in intensity to the amplitude of its vibration.

That the difference between an undulatory and an intermittent current may be more clearly understood I shall describe the condition of the electrical current when the attempt is made to transmit two musical notes simultaneously—first upon the one plan and then upon the other. Let the interval between the two sounds be a major third; then their rates of vibration are in the ratio of 4 to 5. Now, when the intermittent current is used the circuit is made and broken four times by one transmitting-instrument in the same time that five makes and breaks are caused by the other. A and B, Figs. 1, 2, and 3, represent the intermittent currents produced, four impulses of B being made in the same time as five impulses of A. *o o o*, &c., show where and for how long time the circuit is made, and *d d d*, &c., indicate the duration of the breaks of the circuit. The line A and B shows the total effect upon the current when the transmitting-instruments for A and B are caused simultaneously to make and break the same circuit. The resultant effect depends very much upon the duration of the make relatively to the break. In Fig. 1 the ratio is as 1 to 4; in Fig. 2, as 1 to 2; and in Fig. 3 the makes and breaks are of equal duration. The combined effect, A and B, Fig. 3, is very nearly equivalent to a continuous current.

When many transmitting-instruments of different rates of vibration are simultaneously making and breaking the same circuit the current upon the main line becomes for all practical purposes continuous.

Next, consider the effect when an undulatory current is employed. Electrical undulations, induced by the vibration of a body capable of inductive action, can be represented graphically, without error, by the same sinusoidal curve which expresses the vibration of the inducing body itself, and the effect of its vibration upon the air; for, as above stated, the rate of oscillation in the electrical current corresponds to the rate of vibration of the inducing body—that is, to the pitch of the sound produced. The intensity of the current varies with the amplitude of the vibration—that is, with the loudness of the sound; and the polarity of the current corresponds to the direction of the vibrating body—that is, to the condensations and rarefactions of air produced by the vibration. Hence, the sinusoidal curve A or B, Fig. 4, represents, graphically, the electrical undulations induced in a circuit by the vibration of a body capable of inductive action.

The horizontal line *a d e f*, &c., represents the zero of current. The elevations *b b b*, &c., indicate impulses of positive electricity. The depressions *c c c*, &c., show impulses of negative electricity. The vertical distance *b d* or *e f* of any portion of the curve from the zero line expresses the intensity of the positive or

negative impulse at the part observed, and the horizontal distance *a* indicates the duration of the electrical oscillation. The vibrations represented by the sinusoidal curves B and A, Fig. 4, are in the ratio aforesaid, of 4 to 5—that is, four oscillations of B are made in the same time as five oscillations of A.

The combined effect of A and B, when induced simultaneously on the same circuit, is expressed by the curve A+B, Fig. 4, which is the algebraical sum of the sinusoidal curves A and B. This curve A+B also indicates the actual motion of the air when the two musical notes considered are sounded simultaneously. Thus, when electrical undulations of different rates are simultaneously induced in the same circuit, an effect is produced exactly analogous to that occasioned in the air by the vibration of the inducing bodies. Hence, the coexistence upon a telegraphic circuit of electrical vibrations of different pitch is manifested not by the obliteration of the vibratory character of the current, but by peculiarities in the shapes of the electrical undulations, or, in other words, by peculiarities in the shapes of the curves which represent those undulations.

There are many ways of producing undulatory currents of electricity, dependent for effect upon the vibrations or motions of bodies capable of inductive action. A few of the methods that may be employed I shall here specify. When a wire, through which a continuous current of electricity is passing, is caused to vibrate in the neighborhood of another wire, an undulatory current of electricity is induced in the latter. When a cylinder, upon which are arranged bar-magnets, is made to rotate in front of the pole of an electro-magnet, an undulatory current of electricity is induced in the coils of the electro-magnet.

Undulations are caused in a continuous voltaic current by the vibration or motion of bodies capable of inductive action; or by the vibration of the conducting-wire itself in the neighborhood of such bodies. Electrical undulations may also be caused by alternately increasing and diminishing the resistance of the circuit, or by alternately increasing and diminishing the power of the battery. The internal resistance of a battery is diminished by bringing the voltaic elements nearer together, and increased by placing them farther apart. The reciprocal vibration of the elements of a battery, therefore, occasions an undulatory action in the voltaic current. The external resistance may also be varied. For instance, let mercury or some other liquid form part of a voltaic circuit, then the more deeply the conducting-wire is immersed in the mercury or other liquid, the less resistance does the liquid offer to the passage of the current. Hence, the vibration of the conducting-wire in mercury or other liquid included in the circuit occasions undulations in the current. The vertical vibrations of the elements of a battery in the liquid in which

174,465

3

they are immersed produces an undulatory action in the current by alternately increasing and diminishing the power of the battery.

In illustration of the method of creating electrical undulations, I shall show and describe one form of apparatus for producing the effect. I prefer to employ for this purpose an electro-magnet, A, Fig. 5, having a coil upon only one of its legs *b*. A steel-spring armature, *c*, is firmly clamped by one extremity to the uncovered leg *d* of the magnet, and its free end is allowed to project above the pole of the covered leg. The armature *c* can be set in vibration in a variety of ways, one of which is by wind, and, in vibrating, it produces a musical note of a certain definite pitch.

When the instrument A is placed in a voltaic circuit, *g b e f g*, the armature *c* becomes magnetic, and the polarity of its free end is opposed to that of the magnet underneath. So long as the armature *c* remains at rest, no effect is produced upon the voltaic current, but the moment it is set in vibration to produce its musical note a powerful inductive action takes place, and electrical undulations traverse the circuit *g b e f g*. The vibratory current passing through the coil of the electro-magnet *f* causes vibration in its armature *h* when the armatures *c* and *h* of the two instruments A and B are normally in unison with one another; but the armature *h* is unaffected by the passage of the undulatory current when the pitches of the two instruments are different.

A number of instruments may be placed upon a telegraphic circuit, as in Fig. 6. When the armature of any one of the instruments is set in vibration all the other instruments upon the circuit which are in unison with it respond, but those which have normally a different rate of vibration remain silent. Thus, if A, Fig. 6, is set in vibration, the armatures of A' and A'' will vibrate also; but all the others on the circuit will remain still. So if B' is caused to emit its musical note the instruments B and B'' respond. They continue sounding so long as the mechanical vibration of B' is continued, but become silent with the cessation of its motion. The duration of the sound may be used to indicate the dot or dash of the Morse alphabet, and thus a telegraphic dispatch may be indicated by alternately interrupting and renewing the sound.

When two or more instruments of different pitch are simultaneously caused to vibrate, all the instruments of corresponding pitches upon the circuit are set in vibration, each responding to that one only of the transmitting instruments with which it is in unison. Thus the signals of A, Fig. 6, are repeated by A' and A'', but by no other instrument upon the circuit; the signals of B' by B and B'; and the signals of C' by C and C'—whether A, B', and C' are successively or simultaneously caused to vibrate. Hence by these instruments two or more telegraphic signals or messages may be sent simultaneously over the same circuit without interfering with one another.

I desire here to remark that there are many other uses to which these instruments may be put, such as the simultaneous transmission of musical notes, differing in loudness as well as in pitch, and the telegraphic transmission of noises or sounds of any kind.

When the armature *c*, Fig. 5, is set in vibration the armature *h* responds not only in pitch, but in loudness. Thus, when *c* vibrates with little amplitude, a very soft musical note proceeds from *h*; and when *c* vibrates forcibly the amplitude of the vibration of *h* is considerably increased, and the resulting sound becomes louder. So, if A and B, Fig. 6, are sounded simultaneously, (A loudly and B softly,) the instruments A' and A'' repeat loudly the signals of A, and B' B'' repeat softly those of B.

One of the ways in which the armature *c*, Fig. 5, may be set in vibration has been stated above to be by wind. Another mode is shown in Fig. 7, whereby motion can be imparted to the armature by the human voice or by means of a musical instrument.

The armature *c*, Fig. 7, is fastened loosely by one extremity to the uncovered leg *d* of the electro-magnet *b*, and its other extremity is attached to the center of a stretched membrane, *a*. A cone, A, is used to converge sound-vibrations upon the membrane. When a sound is uttered in the cone the membrane *a* is set in vibration, the armature *c* is forced to partake of the motion, and thus electrical undulations are created upon the circuit *E b e f g*. These undulations are similar in form to the air vibrations caused by the sound—that is, they are represented graphically by similar curves.

The undulatory current passing through the electro-magnet *f* influences its armature *h* to copy the motion of the armature *c*. A similar sound to that uttered into A is then heard to proceed from L.

In this specification the three words "oscillation," "vibration," and "undulation," are used synonymously, and in contradistinction to the terms "intermittent" and "pulsatory." By the terms "body capable of inductive action," I mean a body which, when in motion, produces dynamical electricity. I include in the category of bodies capable of inductive action—brass, copper, and other metals; as well as iron and steel.

Having described my invention, what I claim, and desire to secure by Letters Patent is as follows:

1. A system of telegraphy in which the receiver is set in vibration by the employment of undulatory currents of electricity, substantially as set forth.

2. The combination, substantially as set forth, of a permanent magnet or other body capable of inductive action, with a closed circuit, so that the vibration of the one shall occasion electrical undulations in the other, or in itself, and this I claim, whether the permanent magnet be set in vibration in the neighborhood of the conducting-wire form-

4

174,465

ing the circuit, or whether the conducting-wire be set in vibration in the neighborhood of the permanent magnet, or whether the conducting-wire and the permanent magnet both simultaneously be set in vibration in each other's neighborhood.

3. The method of producing undulations in a continuous voltaic current by the vibration or motion of bodies capable of inductive action, or by the vibration or motion of the conducting-wire itself, in the neighborhood of such bodies, as set forth.

4. The method of producing undulations in a continuous voltaic circuit by gradually increasing and diminishing the resistance of the

circuit, or by gradually increasing and diminishing the power of the battery, as set forth.

5. The method of, and apparatus for, transmitting vocal or other sounds telegraphically, as herein described, by causing electrical undulations, similar in form to the vibrations of the air accompanying the said vocal or other sound, substantially as set forth.

In testimony whereof I have hereunto signed my name this 20th day of January, A. D. 1876.

ALEX. GRAHAM BELL.

Witnesses:

THOMAS E. BARRY,
P. D. RICHARDS.

Colds.

By Dr. Alvah H. Doty, Medical Director, Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company.

As the fall and winter approach we are very forcibly reminded of the great frequency with which "colds" occur, although they are not by any means confined to certain seasons of the year. It is the general belief that this affection, which involves the mucous membrane of the nasal cavity and usually the throat, is due to drafts, sudden changes in the temperature, wet feet, etc. This is not the true explanation of the origin of a cold for it is really caused by special forms of bacteria or germs which find their way to this membrane and under certain influences excite an active inflammation of these parts; therefore a cold is an infectious disease, and transmissible from one person to another.

In a previous article relating to tuberculosis it was stated that a large proportion of the population of cities and closely built-up communities are carriers of the germs of this disease, but if these organisms are not too great in number, or too active, and if the resisting power of the body is good the pulmonary or lung complication may not occur and the tubercle bacilli, unable to make any headway, are destroyed and absorbed by the healthy tissue. Practically this same condition occurs in connection with a cold, although the germs which cause this affection are far oftener present in the body—therefore, a cold is probably the most common ailment we have. The ordinary form of pneumonia is also due to the presence of a specific germ and is therefore an infectious disease.

This article does not admit of sufficient space to describe how satisfactorily scientific investigation has proven the value of good health in preventing the development of infection when various forms of bacteria enter the body, although a word may very properly be said here in reference to it, for it is the purpose of this article to impress upon the reader the fact that a cold is not always a trivial affair, for serious complications may take place as the result of the extension of the inflammation to adjacent membranes, for it is not infrequently followed by pneumonia particularly in the very young and those advanced in years and in persons whose health is much impaired; besides at any period of life a cold may lead to temporary or permanent deafness, chronic catarrh and other conditions which cause continued annoyance and often render those who are thus affected unable to successfully carry out their work. Very naturally our system in various ways protects against the invasion of infectious germs. The blood supplies the most important aid in this direction for it contains little bodies known as leukocytes which are always on guard; they are wonderful fighters and attack these germs with great ferocity. If, from impaired nourishment or other causes the function of the leukocytes is interfered with and if the various organs of the body do not properly perform their work, we suffer in many ways—particularly in connection with infectious diseases.

The germs that cause a cold may at almost any time be found in our nose and throat but usually require some ex-

citing cause to render them sufficiently active to induce inflammation; this may come in the form of lowered vitality, or drafts, wet feet, sudden changes of temperature, etc. Those who are in the mountains or in regions where there is but little chance of infection do not suffer from colds although the temperature may be very low and the exposure may last for some time.

A certain form of cold is often caused by some general infection and becomes a symptom of this disease; for instance, this occurs in measles. Every mother

mitting the infection to others—particularly when cleanliness is observed and the discharges are promptly destroyed. This may be greatly aided by the use of thin cheesecloth which is first boiled, then dried and cut in small pieces and used in place of handkerchiefs and afterwards burned.

If the symptoms are aggravated the family physician should be promptly sent for; otherwise, some of the simple home remedies may be employed, for instance, in the beginning a hot lemonade, extra warmth to the body and a cathartic at bedtime are of value, for these agents stimulate the skin, liver and intestinal tract and aid in relieving the inflamed membrane and limiting the infection. A mustard foot bath at bedtime may also be useful in this condition. The diet should be light and without meat.

What is far more important in connection with this subject are preventive measures. They may be practically applied by observing the rules of hygiene, good food, proper exercise, cold baths, etc., for all of these protect against colds by keeping the body in good healthy condition.

Proper clothing should be worn suitable for the season; this has previously been referred to. Such articles as chest protectors and mufflers should be avoided for they weaken the skin and therefore do more harm than good. It is the care of the body rather than the selection of the clothing that offers the greatest protection in the prevention of colds.

Wet feet constitute one of the most common exciting causes of a cold, particularly as the stockings and shoes usually remain wet or damp for a large part of the day. Rubbers are unpopular, chiefly on account of their appearance; this is quite senseless in view of the great comfort and protection they afford in wet weather. The foot gear of today, particularly that worn by women, offers practically no protection against wet ground and pavement. Water-proof shoes for general use exist chiefly in the imagination for the best of this kind do not keep the feet dry and are unworthy of consideration. Women are particularly susceptible to the various unpleasant conditions which may be indirectly caused by wet feet, and much suffering may be avoided if rubbers are worn during storms or when the ground is wet. Mackintoshes are also of great value in keeping the clothing dry during storms, for umbrellas at the best protect only the head and upper part of the body. If wet clothing, shoes and stockings cannot be promptly changed a cold may often be prevented if active exercise is continued until an opportunity presents itself to briskly rub the skin and put on dry garments.

It can hardly be expected that a person who has contracted a very mild cold will remain at home, particularly if it interferes with the daily work, but effort should be made to prevent further infection by avoiding undue exposure while in this condition, otherwise a mild attack often becomes a severe one and may last indefinitely or end in some unpleasant or serious complication which might easily have been avoided if proper care was used.



ARTISTIC COVER OVER ONE OF THE BANQUET COURSES.

knows that a cold in the head—particularly if in addition the eyes are congested, may be the forerunner of this disease.

As a cold is a germ infection it must follow a certain course and the best we can do, under the circumstances, is to lessen its severity and prevent its extension. There is a popular belief that a cold lasts three days; there is considerable truth in this, for even when properly cared for this period usually elapses before the activity of the attack ceases.

A cold is ushered in by symptoms which are so well known that they need hardly be described. In a well marked type of this affection a feeling of malaise or depression usually precedes the more active symptoms, such as chilly feelings, sneezing and dryness of the membrane, followed by a copious discharge, pains in different parts of the body and sometimes accompanied by considerable elevation of temperature. If the attack is associated with the constitutional symptoms referred to, much will be gained in the way of saving time and avoiding unpleasant complications if the patient will remain at home in a room which is kept at an even temperature of about 70 degrees until the more active symptoms have subsided; in this way there is also less chance of trans-

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Service Standing

Following are the place positions of the offices for the month of September:

First	Canal
Second	Main
*Third	Humboldt
*Fourth	Lincoln
Fifth	Douglas

*Tied for third place.

NEIGHBORHOOD.

First	South Chicago
Second	West Pullman

Suburban Promotions

Aurora—L. Danly, operator to night supervisor.

Evanston—H. Clifford, operator to supervisor; M. Fee, operator to night supervisor.

Wilmette—A. Fjellman, operator to supervisor.

Hammond—M. Moran, supervisor to assistant chief operator; A. McLees, operator to supervisor.

Joliet—J. Hynd, operator to supervisor. Coal City—M. Thornton, operator to chief operator.

LaGrange—P. Jones, operator to assistant chief operator. Berwyn—A. Swanson, operator to assistant chief operator.

Waukegan—L. Neely, operator to repair clerk; O. Herberger, repair clerk to traffic chief's clerk; C. Mahoney, operator to supervisor.

Libertyville—P. Gerred, operator to assistant chief operator; M. Bennett, assistant chief operator to chief operator.

Crystal Lake—B. Loomis, operator to assistant chief operator.

Weddings

Katherine Brennan, one of the wittiest and most popular of Oakland evening supervisors, was married to Albert Rooney at solemn high nuptial Mass, at St. Anselm's Roman Catholic Church, Wednesday, September 10th, at 9 a. m. Rev. Father Rooney, brother of the bridegroom, officiated. The bride was gowned in white satin, with over-drape of lace. Her tulle veil was interwoven with bride roses, of which she carried a shower bouquet. Her maid of honor wore yellow satin, and carried a shower bouquet of Killarney roses. One of the prettiest of the many affairs given in her honor was that of the "Mizpah Club" of which she was treasurer. It was a surprise luncheon and shower. The color scheme was carried out in gold and white, the club colors. Miss Dedmond, chief operator, and Mrs. Ehrhart, matron, were guests of honor. Miss Brennan received many beautiful gifts. Miss O'Sullivan, the president, presented her with the "Mizpah" picture, in behalf of the Club. Mr. and Mrs. Rooney spent their honeymoon at "The Dells," Wisconsin.

Amanda Ihde resigned from Main office, September 23rd, to be married to Frederick C. Drebes, Wednesday, October 15th, at 8 o'clock, at St. Lucas' Evangelical Lutheran Church, Belmont and Perry streets. They will be at home after November 1, at 2057 Collum avenue. The tandem operators gave her a cut glass vase, and the main supervisors and clerks gave her a cut glass bowl.

Nora Leahy, Lawndale night operator, was married to John Leahy, July 23rd, at St. Agatha's Church. Miss Leahy was presented with a cut glass bowl by the night force, July 19th at the home of Miss C. Lynch, the night supervisor. All spent a very pleasant evening. The bride and groom spent their honeymoon at Niagara Falls and Boston.

Elizabeth Redmond resigned her position as supervisor at Waukegan, to be married to Edward Salmon. Miss Redmond had been in the employ of the company since April 22, 1903. The good wishes of their friends accompany them. Mae Flood, Lake Forest chief operator, gave a novelty shower in honor of Miss Redmond. Miss Redmond received many useful presents. On August 28th Miss Harriet Warner, Chief Operator at Waukegan, entertained the operators of the Waukegan Exchange at a linen shower in Miss Redmond's honor. The evening was very pleasantly spent in playing games, and the decorations, which were in pink and white, proved to be very pretty. The bride-to-be received many pretty articles, including a

set of table cloth and napkins. As a wedding gift from the girls she was presented with a dozen beautiful sherbet glasses.

Cupid was not only busy at Wentworth, as given in the marriage column of the October issue, but also in the assistant maintenance superintendent's office. On Tuesday, September 9th, J. (Dannie) Shaver was married to Flora Taylor.

Sadie Henry, toll operator, who had been with the company over four years, resigned in September to be married to Anthony Nelson, October 1st. Mr. and Mrs. Nelson are making their home at Harvey, Ill.

Anna Smith, toll, who has been with the company for six years, resigned in September to be married on October 8th, to Joseph King. After their wedding journey they will be at home November 1st at 4844 Rice street, Austin, Ill.

Wentworth Dancing Party

The Oleta Girls of Wentworth exchange report a delightful informal dancing party at Warwick hall, Friday evening, September 26th. A large number of Wentworth girls and their friends were present and the attractive hall and good orchestra were fully appreciated by the company.

Waukegan District Notes

Cecelia Mahoney was promoted to fill the vacancy left open by Miss Redmond's resignation on September 1st, 1913.

Oliver Herberger, former repair clerk, has been promoted to traffic chief's clerk, and Lucy Neely, operator, to repair clerk.

Miss Bennett, of Libertyville Exchange, has been promoted from assistant chief operator, to chief operator, and Miss Gerred of the same exchange, to assistant chief operator.

Ida Jansen resigned her position as an operator at Waukegan to enter into training to become a nurse. She has the best wishes of her numerous friends.

Miss G. Bennett, operator at Zion City, has been appointed to the position of assistant chief operator, a position which has never been held before at Zion City.

Fern Hutchingson, chief operator at Wauconda, recently resigned to accept a position in a Wauconda Bank. Mrs. Viola Carr is taking her place as chief operator.

Illinois Division

A. J. Parsons, Correspondent,
Springfield

Alton District.

The plant department has just completed installing a No. 101 switchboard for the Alton Steel Company, with two trunks and seventeen stations; also a private branch exchange for the Illinois Glass Company, connecting all departments.

Pefer Wise, repairman, has resigned and is succeeded by Clarence Sheff.

James Parrish has accepted the position of toll line repairman at Alton.

On Sunday, September 4th, the operators of the Central Union Telephone Company at Alton enjoyed their Second Annual Picnic at Yost Grove. The day was ideal. All arrived about 9:30 a. m. ready for a day's pleasure. Decorations consisted of C. U. tags and blue and white bunting. Dinner was served to about seventy-five, including operators and their friends. The afternoon amusement consisted of baseball, bean bag, croquet and dancing. At 6 o'clock all assembled again to enjoy another hearty meal, as everyone had mustered up a good appetite by this time. Supper was served to about 112. After supper dancing was enjoyed until 11 p. m. Music was furnished by Cordella Jones and orchestra. All departed voting the operators as being "right there" to show their friends a general good time.

Margaret Slaven entertained the operators and their friends at her home on the evening of September 19th. About twenty-five couples were present. Various games and musical and vocal solos furnished the evening's entertainment. Refreshments were served. A general good time was enjoyed.

Monday evening, September 22d, the operators at Alton entertained their friends with a private dance at Yost's Pavilion. Decorations consisted of C. U. colors and C. U. bells. A trick circle two-step was introduced, which made this dance different from any other the operators have held.

Music was furnished by Cordella Jones and orchestra.

On the evening of September 30th a kitchen shower was given in honor of the approaching marriage of Bessie Sutton, toll operator at Alton, to William Meitner, a well known printer. Miss Sutton received everything useful for her future home. Refreshments were served and all departed extending their heartiest congratulations and best wishes.

Tuesday morning, October 7th, the marriage of Bessie Sutton, toll operator at Alton, to William Meitner, took place at St. Mary's Church. The attendants were George Leady, cousin of the groom, and Julia Hale, traffic clerk at the Alton Exchange. The bride wore a gown of shadow lace over silk chiffon, a wreath of natural roses and smilax and carried a bouquet of brides roses. Miss Hale wore a shadow lace over net, a white lace hat, and carried pink roses. After the wedding the happy party made their way to the carriage amid showers of rice. The carriage was decorated for the occasion. The party proceeded to the bride's home, where a wedding breakfast was served. A reception followed. The couple left at 7 p. m. on a southern honeymoon, with best wishes for a bright and happy future.

Champaign District.

An estimate has been approved and assigned to the plant department covering the rebuilding of the Champaign-Tuscola toll line from Tolono Junction to Tuscola, together with the replacement of the present iron wire with copper wire.

A No. 4 private branch exchange, consisting of three trunks and eight stations, has been installed for the Metzler-Schafer Grocery Company.

A No. 2 private branch exchange, consisting of one trunk and six stations, has been installed for the Eisner Grocery Company.

Alice Mirgon, supervisor, has returned from a four weeks' vacation spent with relatives in Ohio.

Lillie Smith, chief instructor for the Peoria district, has gone for a three weeks' vacation with relatives in Ohio and Kentucky.

Decatur District.

A private branch exchange has been installed for the city of Decatur, consisting of two trunks, seven stations and cordless switchboard.

A private branch exchange has been installed in the main offices of the Decatur Railway and Light Company, consisting of cordless switchboard, six stations and two trunks.

Lillian Holcomb has resigned her position as toll operator and is succeeded by Mattie Topping, formerly with the Decatur Railway and Light Company.

Heavy toll traffic has made it necessary to add two positions to the toll board, and the positions have been filled by appointment of Lulu Green and Zula Phillips, experienced operators from Paris, Ill.

L. T. Coultas, cable repairman No. 2, has been transferred to Champaign. Mr. Coultas is succeeded by Ray Doty, promoted from position of installer.

M. B. Smith, lineman, and Helen Smith, of Decatur, were married in St. Louis on September 17th.

John J. Kimmel, toll repairman, has resigned his position to accept a similar position with the Iowa Telephone Company.

Bert Chance spent his vacation fishing and camping on the Sangamon river.

Galesburg District

Maud Haggenjos, traffic chief at Galesburg, has returned to her work after a pleasant vacation.

Ruth Gilbert resigned her position as toll operator at Galesburg.

Estella Kennedy, cashier at Galesburg, spent her vacation in Brookfield, Mo., and Kansas City.

Walter Pickering, chief clerk in the district plant chief's office, spent his vacation in Springfield and took in the state fair.

Maud Welsh, cashier at the Oquawka exchange, spent her vacation in Chicago and reports a delightful time.

C. E. Wood, testman at Galesburg, spent several days at Rockford and Oregon, Ill.

The Farmers' Telephone Company at Smithshire recently purchased a new Western Electric board through Salesman Hatfield.

Anna Milligan, chief operator at Kewanee, has resigned. Mrs. Thompson takes the position.

Jacksonville District

Paul Ramer, plant chief at Cairo, has accepted the position of plant chief at Beardstown.

James Melvin, repairman at Roodhouse, has accepted a position in the construction department under Foreman White. Henry Markham has taken the position vacated by James Melvin.

Nellie Conkle is back in the operating department after an absence of several months.

Fred Miley, plant chief, has returned to Jacksonville from Beardstown, where he acted as plant chief for a few months.

Kankakee District

Frank Deebank, late city electrician for Kankakee, Ill., is now commercial agent for the Central Union Telephone Company and is "rounding up" a nice lot of contracts.

A. R. Millard, Sr., of Springfield, is now a resident of Kankakee, having located here to act as commercial agent. He has many former line contracts to his credit for September.

A. D. Goudreau is a recent member of the Kankakee commercial agent force. He is signing new subscribers for Manteno and adjacent country.

Foreman Hayes is reconstructing toll lines between Donovan and Sheldon, also between Watseka and Milford.

An estimate has been approved to be completed not later than December 1, 1913, for new copper circuits and general repairs on the Gilman-Paxton toll line.

District Commercial Manager Thomas Brown points with pride to the fact that his commercial agents wrote 292 new contracts for subscribers in September. Kankakee alone showed a net gain of eighty-two subscribers.

L. P. Boardman, repairman of Peru, Ind., is a new employee at Kankakee.

George S. Thompson, installer for the past two years, left September 15th, with the best wishes of his Bell associates here, to attend dental school at Ann Arbor, Mich.

F. E. Aldrich, cable repairman, has been transferred to the Galesburg district.

J. H. Belt, of Springfield, is doing a nice business landing new subscribers at the Kankakee exchange.

A. J. Bailey is now manager at Gilman, with Harry German as repairman.

La Salle District

Mrs. Julia Taylor, temporary stenographer at LaSalle having resigned as of October 1st, Dorothy Dwyer of LaSalle has been employed to succeed her.

The new cable estimate at Oglesby has been completed and gives us better facilities at that point.

Rumor has it that the commercial department is about to lose one or more clerks by the matrimonial route. The same rumor predicts the loss of an operator although members of the plant department deny it.

Business is looking up with every indication of reaching the mark set by the commercial department.

Peoria District

A private branch exchange has just been installed for the Regis Hotel, Peoria, consisting of eighty six sub-stations.

An estimate has been approved and assigned to the plant department covering the rebuilding and repairing of the toll route from Geneseo through Galva to Peoria, including the substitution of copper wire for iron wire at various points throughout the line. All of the work is to be carried over into 1914.

An estimate has been approved and assigned to the plant department for underground construction at Peoria, in the vicinity of the new Illinois Traction Station.

An estimate has been approved and assigned to the plant department for the work of extending underground conduit and cable from the present conduit run through Chestnut Street to the Union Station, in order to do away with the present poles and wire in that vicinity. This estimate will be carried out this year.

S. A. Marcus has accepted a position as commercial agent at Peoria. Mr. Marcus was formerly employed in the contract department at Peoria.

An estimate amounting to \$53,611 has been approved and assigned to the plant department for the rebuilding and rerouting of the Peoria-Springfield toll line, including new circuits in certain sections.

Roscoe Walls, collector at Peoria, has just returned from a two months' vacation in the mountains around Denver.

Charles P. Raynor resigned his position as commercial agent at Peoria exchange October 1st, to engage in the moving picture business.

The Western Electric Company has completed the installation of a No. 1 Toll Board of eight operating positions at Bloomington.

A private branch exchange has just been installed for the Chicago & Alton Railroad at Bloomington, consisting of thirty-six sub-stations.

Private branch exchange contracts have been secured at Peoria for the following:

Western Live Stock Insurance Company for two trunks, one cordless switchboard and five sub-stations.

Yale Hotel, for one trunk, one switchboard and thirty sub-stations.

Peerless Cleaning & Dying Company, two trunks, one cordless switchboard and six sub-stations.

An estimate covering underground construction, has been approved and assigned to the plant department at Peoria. This estimate is to provide additional facilities in the south and southwestern sections of the Main District and supplements estimates covering work now in course of construction. This estimate amounts to \$71,777.

Quincy District.

A. J. Nolert, equipment foreman, was married at Quincy, Ill., to Susie Crowsky, on October 9th.

M. H. Jeck, private branch exchange installer, was also married to one of the toll operators at Beardstown, Ill.

C. R. Bebee, plant supervisor, is making Quincy his headquarters and is expected to stay for some time, as he is assisting the plant department.

Clara Eckert, trouble clerk, has resigned her position and has accepted a position as chief operator at Macomb, Ill., for the Macomb Telephone Company.

Lena Chadwick, toll operator, has resigned and accepted a position at Phoenix, Ariz., as chief operator.

Valley Vonden Haar, toll operator, has resigned to be married to a Hannibal, Mo., man. It seems that if the above keeps on much longer Quincy will be left without any operators, as they all seem to be so popular that someone else wants them.

F. H. Adams of Bloomington has accepted the position of traffic chief at Quincy.

Rockford District.

Plans have been furnished the district plant chief at Rockford for the erection of additional cable at Galena, on account of putting in new subscribers.

An estimate has been assigned to the plant superintendent, covering the erection of additional aerial and underground cable at Rockford, to the amount of \$22,545. Work was started October 1st and is to be completed January 1, 1914.

Members of the Blue Bell Club enjoyed a theater party and luncheon. A Halloween party was also planned by club members. The girls have recently acquired a fancy for globe trotting and on Sunday, October 12th, journeyed to a neighboring city, walking the entire distance.

Winifred Keeling has accepted a position as collector at Rockford.

L. E. Randerson has resigned his position as commercial agent at Rockford and is succeeded by James Eberhardt.

Jeanette Hurst spent her vacation at Maywood, Ill.

Anna Bonzi, local operator, has been promoted to local supervisor.

Audrey Smith, toll operator, has been promoted to toll supervisor at Rockford.

Alice Williamson has returned from her vacation spent at Dubuque, Iowa.

Theresa Beane, clerk in the commercial department, has secured a leave of absence, owing to ill health.

Blanche Franstiel, clerk in the traffic department, has returned to her desk after a two months' leave of absence.

Rock Island District.

Earl Greenwood, contract agent, was married to Ola VanHorn, Wednesday, October 8th. They are on an extended wedding tour in the east.

A private branch exchange has been installed in the Colonial Hotel, with sixty-five stations and one trunk.

Contracts have been secured for a private branch exchange in the Rock Island Tool & Metal Works, for six stations and two trunks.

The new Telephone Building, under construction, is progressing nicely, concrete having been laid for the first floor. Mr. Black of the Construction Company from Chicago says the building will be complete January 1, 1914.

A. B. Eddie of the plant department was transferred to the commercial department, October 15th.

Centralized accounting has been placed into effect for the Rock Island District, reporting being made to Chicago office.

A commercial meeting was held in Rock Island for the Rock Island District on Sep-

tember 30th, for the purpose of receiving instructions on centralized accounting.

Ida Chambers, toll supervisor at Rock Island, was married September 25th to John Renz.

Grace Clegg, toll clerk at Rock Island, has been appointed toll supervisor, succeeding Ida Chambers. Melissa Orr, toll operator, succeeds Miss Clegg as clerk.

Anna Krantz, toll operator at Rock Island, entertained the toll force at a birthday party at her residence.

Hattie Abbott entertained the toll operating force at her residence October 8th. A very pleasant evening was spent.

Bertha Hazelrigg, night operator at Rock Island, has been seriously ill. She is now gaining rapidly and it is hoped by her many friends that she will be able to return to her duties in the near future.

The members of the Cordon Bleu Club of the Moline Exchange enjoyed a theater party at the Burtis Opera House in Davenport, where they witnessed the "Countess of Luxembourg."

Springfield District.

On September 1st the Central Union Baseball Club played for the city championship. The real thriller of the season was staged between the only contenders for the city rag, the Appels and the C. U. Boys. When the ninth inning opened, the Central Union boys were two scores behind, when a walk, two hits and a passed ball scored the winning runs. Gordy, pitching for the telephone boys, hurled one of the prettiest amateur games ever seen in this city, striking out twelve men, holding the hard hitting Appels to seven hits. The boys are all "swelled up" after having defeated Appels for the city championship. The final score was 8 to 7.

Bert Moore has been transferred from the commercial department to the accounting department. Louise Dirksen succeeds him as clerk in the commercial department.

Rose U. Segin has accepted a position in the commercial department.

Dorothy Jones, local operator, resigned September 1st, to attend school.

Katie Failing, local operator, who has been ill for the past month with typhoid fever, is somewhat improved.

The commercial department secured contracts for over a hundred telephones for the Illinois State Fair. The Fair Grounds Exchange was opened on September 29th, and was very busy for some time. The attended pay station was located at the east entrance to the Dome building, and the switchboard on the second floor of the Machinery Hall. Miss May had charge of the attended pay station, assisted by Mollie Hon, Worl Mae Velle and Helen Buchanan. The exchange was in charge of Ida Kunkle, Edith Schwall, Ethel Glover, Edith Hutton and Grace Ray. Cletus J. Kennedy had charge at night. One new feature of the telephone work at the fair grounds, this year, was the public pay station booths located around the grounds. These outside booths proved a source of great convenience to the visitors.

The commercial department secured contracts covering a private branch exchange in the office of the Board of Education. The contract calls for a cordless board, two trunks and five stations.

Contracts covering a private branch exchange in the new home of the Sangamo Club were secured during the last of September, and the board was installed, and service ready for the opening of the new home on Saturday, October 4th.

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Death of Albert M. Adams.

ALBERT M. ADAMS, one of the organizers of the Parke County Telephone Company, Rockville, Ind., died at his home in Rockville Thursday, October 9th. Mr. Adams at the time of his death was vice president of the Parke County Telephone Company, and for several years, along with other business enterprises in which he was interested, had given considerable attention to the affairs of the telephone company. He was by profession a lawyer of considerable note and his good counsel and ideas of fair dealing will be missed by those formerly associated with him.

Division Offices

In connection with the centralized plant accounting, there have been numerous changes in systems and forms which are strange and terrible to the heart of the plant employee. One of the sad changes was the demise of the familiar old Form G-234 (formerly known as 44-F). When the notice

that this form had been superseded went down the line one of the timekeepers of the construction department was moved to express his sentiments in poetry as follows:

Here's to the going of the old familiar sheet
That has followed us through rain and sleet;
Has chased us over hill and dale
Midst the sunshine of summer and winter
hall;

Has stuck along through storm and flood
Like a porous plaster or Vigo County mud.
Ah, well, the best of friends must part
We bid thee "Farewell" with a heavy heart.
We say good-bye and hate to see you "went"
We still get the same thing only different.

K. B. KELLY.

P. M. Akin of the construction superintendent's office has returned from his wedding trip and is at his desk. Mr. Akin was married August 16th to Donna Zimmer of Indianapolis.

The Indiana Telephone Society met at the University Club on October 6th, eighteen members being present. After the usual informal dinner, the society adjourned to the Roof Garden of the Telephone Building, where W. R. Hirst, plant superintendent, tried his "Famous Lecture"—"Marvels of the Telephone System," on the "dog." The lecture appealed so strongly to the members of the society that without question it will prove more interesting to the general public. Mr. Hirst expects to give his lecture a number of times during the winter.

C. M. Nesbitt, district commercial manager of the Northern District, and wife, together with W. N. Turner, general manager of the Citizens Telephone Company of Kokomo, and wife spent a couple of weeks at Barbee Lake. One "Fish Story" has already been received from Mr. Nesbitt—116 fish in two days. We are wondering what kind.

R. E. Guild, miscellaneous secretary and auditor, left on October 6th for Houston, Tex., for two or three weeks' vacation. He said when he left that he was glad to get away from it all. He has been "going some" for the past few months.

Central District

W. G. Johnson of the collection department, and Mrs. Johnson entertained the pay station attendants and their supervisor on October 3d at their home. A very elaborate dinner was served and a most enjoyable evening was spent. The decorations were pink and green, and the table was laid for eleven.

The marriage of Lenore Manuel, pay station attendant at the Severin Hotel, to Frank Kimbell, took place during the latter part of September.

Anna Welch, the Training School Instructor, has returned from Chicago, where she attended the classes of the training school of the Chicago Telephone Company.

Irene Evans, formerly connected with this company, but now connected with the Training School of the Pacific Telephone and Telegraph Company at Los Angeles, Calif., is visiting her mother on North Pennsylvania Street. Miss Evans was the guest of honor at a matinee party given by Miss Cooper on October 11th.

Grace Mockford, supervisor of the North Office, and Edith Timmerman, supervisor of the Main Office, resigned their positions October 4th and departed October 6th for Portland, Ore., where they expect to remain indefinitely.

The I. W. C. Club has resumed its meetings; the staff is to meet the first Thursday of each month to discuss the business of the club and office, and the club is to meet the last Thursday of every month for a social time. They have opened the season's entertainment by giving a masquerade dance on Halloween at the P. H. C. Hall.

A number of the North Office operators gave a theater party at English's on October 13th.

Anna Dugan and her sister Nora spent a fortnight at West Baden, Ind.

Etta Johnson, repair clerk at the Prospect Office, has been transferred to the plant department, filling position of clerk to Mr. Gregoire, the Indianapolis wire chief. She has been succeeded by Katharine Prader, formerly local operator.

Louise Staub, one of the supervisors of the Prospect Office, has returned from a very pleasant vacation spent in Cincinnati, Ohio.

Leona Holtz and Rena Wallace, two of the Prospect operators, entertained a number of their friends from the office at the home of Miss Holtz Saturday evening, September 20th. Luncheon was served and a very enjoyable evening was spent.

Mabel Benson has returned from Flat Rock Cave, Ind., where she spent her vacation.

Marle Brethauer and Pansy Holder spent a week at Miss Holder's home at Lyons, Ind.

Thursday evening, October 2d, Edith Buser gave a theater party in honor of Edith Timmerman, who resigned October 4th to leave for the Pacific Coast. Boxes of candy were given as favors.

John R. Hutson, who has been cashier in the local plant department for several years, has been transferred to the office of W. R. Hirst, plant superintendent. R. C. Kaster, formerly clerk to the district wire chief, has been advanced to the position of cashier.

Anyone arriving at the Indianapolis Main Exchange at an early hour, and seeing the line wagons and installers departing for their districts, and seeing the large amount of supplies they are evidently figuring on using up that day, would imagine that large sleet or wind storm repairs were in progress, but this is not the case. They are simply trying to keep up with the ever increasing demand of the Indianapolis public for Bell telephone service.

Notwithstanding the fact that Indianapolis is at present in the midst of a large cable cut-over in every branch exchange, that the Western Electric Company is installing additional equipment in all exchanges, and that they have arranged for and just cut in a new branch exchange (Circle), the Indianapolis Plant Department is still pegging away under the landslide and showing a neat gain in subscribers' stations installed every month.

Several weeks ago it became evident to all concerned that Indianapolis Main Exchange would soon be filled up and it was decided to hurry the work of placing the Circle office in operation. Arrangements were made with the Western Electric Company's installer to double up on his schedule so that enough trunks should be provided by October 15th, to cut over the new exchange. On Saturday, October 11th, all was in readiness to do this work. The work was turned over to S. N. Gregoire, district wire chief, who with a large force of men started in to make the necessary cross connections for about 400 lines. These cross connections took more time and work because of the relays being mounted on the main relay rack, which is in the terminal room on the north side of the building, and the multiple, which is on the Circle I. D. F., is located in a terminal room by itself on the south side of the building. This multiple and the answering jack relays are tied together with a tie cable which is run between the Main and Circle I. D. F., making it necessary to run two extra cross connections for each line in addition to the one required for the standard No. 1 board. The work of cutting over these 400 lines was started at 1 p. m. Saturday, October 11th, and by noon Sunday every-

TELEPHONE WIRE

We Guarantee

Greatest Efficiency

Longest Life

Most Satisfactory Service

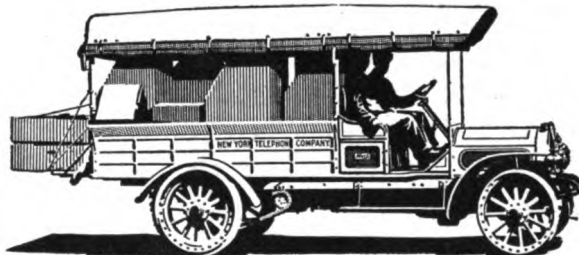
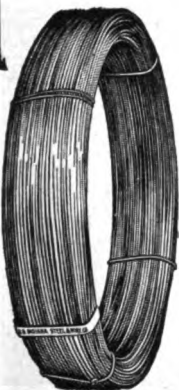
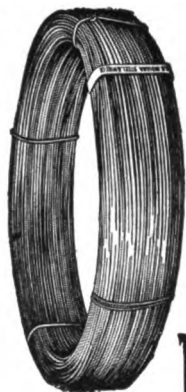
Lowest Cost of Up-keep

In the Use of our wire.

Write for FREE SAMPLE
Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



The Bell Telephone Company's Philadelphia plant uses one of our 1 1/2-ton trucks to supply stations within 25 miles.

The saving over express delivery is 74.3%.

The saving over freight delivery is 59.7%.

International Motor Trucks

Proved by Years of Successful Service

Mack 12 years in use Saurer 18 years in use Hewitt 10 years in use

The continued efficiency of our trucks in all kinds of service is proved by records repeated year after year during 10, 12 and 18 years of service.

We supply a proved truck for every service.

Nine sizes—capacities: 1, 1 1/2, 2, 3, 4, 5, 6 1/2, 7 1/2 and 10 tons.

Bodies for every transportation service.

Have you any delivery problems? We place 18 years' accumulated experience at your service without obligations.

International Motor Company

General Offices: Broadway and 57th Street

Works: Allentown, Pa.; Plainfield, N. J.

Branches and Service Stations in Chicago, Cleveland, Cincinnati, Kansas City—All Large Cities.

Hawkins' Vanishing Cream

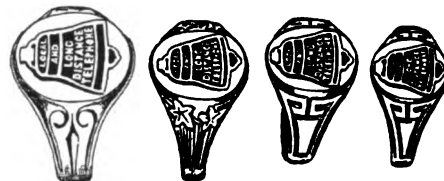
ABSOLUTELY GREASELESS
WILL NOT GROW HAIR

Hawkins' regular 50c Jar of Vanishing Cream by mail, post paid, **35c**

If not delighted with Hawkins' Vanishing Cream after using half the jar, return and your money gladly refunded.

SOLD ONLY BY US

THE A. HAWKINS CO.
6518 S. Lowe Ave. (Not Inc.) Chicago, Ill.



No. 964
\$7.00

No. 965
\$5.00

No. 966
\$4.50

No. 967
\$3.50

Signet Rings in heavy solid gold with the Blue Bell in hard blue enamel.

STATE SIZE REQUIRED.

Illustrated Catalog.

J. C. DERBY

Concord, N. H.

thing was in readiness for operators to be placed at the board and service given over the new exchange. The force detailed to do the work of cutting over, worked straight through, lunch being served in the operators' lunch room.

Northern District

Ruth Calpha and India Coffin, operators at New Castle, have been promoted to supervisors.

Nellie Footit, chief operator at New Castle, has resigned and is succeeded by Mary Folger.

Thirty Muncie operators were entertained September 23d by Miss Wilson, secretary of the Y. W. C. A. Games were played on the lawn and later a marshmallow toast enjoyed in the library.

The Central Union operators of Fort Wayne were delightfully entertained on the evening of October 5th at the home of Erma Kline at Monroeville. Games and music formed the entertainment. A delicious luncheon was served.

Ruth Hamer, toll operator at Fort Wayne, was married September 27th to Jack Payne. She will continue her work at the office. On October 3d she was entertained by Inez Dilts, night chief operator, who gave her a miscellaneous shower.

Irma Reep, toll operator at Fort Wayne, resigned October 1st and left for her future home in Denver, Colo.

Inez Dilts, night chief operator at Fort Wayne, resigned September 30th to take a position as private exchange operator for the Indiana Union Traction Company.

Marguerite Wharton, toll operator at Alexandria, underwent an operation at the St. Johns Hospital in Anderson to remove a goitre. Her condition is favorable.

Lucille Hardern, chief operator at Alexandria, has returned after a two weeks' vacation.

Rozzie Douglass, former night chief operator at Auburn, and for the past six months with the Pacific Telephone Company, has returned to Auburn, greatly improved in health.

Mrs. Faye Lane, formerly toll operator at Auburn and Goshen, attended the Free Fall Festival at Auburn during the week of October 1st to 5th and visited the telephone office.

Sarah Mattox, for the past three years night chief operator at Anderson, resigned September 30th to be married to H. L. Lindamood, a Western Union operator. The wedding took place at the home of the bride's parents October 16th, at 8 p. m. Bertha Stoddard succeeds Miss Mattox as night chief operator.

Mrs. Lulah Walker, evening toll supervisor at Anderson, resigned her position September 30th to go to Indianapolis, where she will make her home. Frances Lloyd succeeds Mrs. Walker as toll supervisor.

Nellie Rigby, an employee of the Greensburg exchange, was married October 1st to Walker Baylor. Lou Kercheval succeeded Miss Rigby as clerk and Gertrude Kendall succeeded Miss Kercheval as chief operator.

H. R. Matlock of Shelbyville, who has been ill, has returned to his duties much improved.

Anna Cramer of the commercial department at Kendallville was the lucky person to obtain a \$10 prize, given at the annual fair held at Kendallville in September, for locating "Elmer the long-lost son."

W. J. Bruder, who has been assisting in the plant department at Kendallville for several months, has accepted a permanent position at Peru.

George W. Mattox, manager at Gas City, has resigned to accept a position with the Southwestern Telegraph and Telephone Company as manager at Orange, Tex. Mr. Mat-

tox is succeeded by R. M. Clifton, formerly plant chief.

A. J. Christy, manager at Cumberland, has resigned to accept a position with the Southwestern Telegraph and Telephone Company, as manager at Huntsville, Tex. Messrs. Mattox and Christy are leaving for the south on account of the health of their families, and the Central Union Telephone Company is losing two good men.

The Cumberland exchange has been transferred from the Northern District to the Central District and will be under the supervision of Indianapolis.

Miss M. Embick of the local supervisory force at South Bend gave a Halloween masquerade at her home on Frances street Thursday evening, October 30th.

Miss E. O'Brien, former chief operator at Mishawaka, Ind., has been transferred to the local operating force at South Bend.

Hazel Bates, who recently returned from Portland, Ore., has accepted the position of chief operator at Mishawaka.

Mrs. K. Kauffman, senior supervisor at South Bend, resigned to accept a position as chief operator at Minot, N. D.

Miss C. Fluke of South Bend, who resigned recently, accepted a position in the Battle Creek Main Exchange.

Miss E. Sipetz has been promoted to supervisor at South Bend from the local operating force.

Miss N. Downing has been employed as a regular operator to succeed Miss B. Stull who is leaving the city to reside in Ohio.

Miss E. Host, toll operator at Niles, Mich., has accepted a position at the South Bend exchange.

Miss L. Henderson, formerly with the Michigan State Telephone Company at Three Rivers, Mich., has accepted a position at the South Bend exchange.

Bertha Cramer, toll operator at Auburn, has returned after spending a few days with her parents at Albion, Ind.

Sadie Crew, toll operator at Auburn, has returned to duty after a week's absence.

Southern District.

Nell Smythe, local supervisor at Terre Haute, was transferred to local chief operator, succeeding Mattie Harms, who was appointed traffic chief.

Selma Wheeler has been transferred to information operator at Terre Haute, succeeding Marie Asherman, who resigned September 1st to accept a position with the Big Four Railroad as private branch exchange operator.

Ruth Gillaspay, chief clerk at Terre Haute, spent her vacation at Perrysville, Ind., visiting her parents.

Nora and Katie Landers of Terre Haute enjoyed a two weeks' vacation at Detroit, Mich., visiting relatives.

Florence Toy, toll operator, and Laura King, local operator at Terre Haute, spent their vacations at Bellaire, Ohio.

Corba Cox, Alpha Cox and Edna Watson of Petersburg have taken position as toll operators at Vincennes.

Alice Strickland of Vincennes spent a two weeks' vacation at St. Louis.

Nell Thomas of Vincennes spent a week in Chicago.

Anna Brown resigned her position as information operator at Vincennes, taking up music. Blanche Boze succeeded Miss Brown.

Emma Bussey, a local operator at Lafayette, has resigned to be married next month.

Edwin Alexander, former chief inspector at Lafayette, has been transferred to Frankfort and is succeeded by C. E. Gossman.

Stella Cartwright, toll operator at Lafayette, is confined to St. Elizabeth Hospital by illness.

Addie Hayes, chief operator at Lafayette, enjoyed a two weeks' vacation visiting Chicago and Jackson, Mich. At Jackson she was the guest of Miss Shorr, chief operator there.

Eva Green, formerly local operator at Brooklyn, has been transferred to night operator. Faye Griggs, extra operator, has been transferred to local operator. Georgie Green has been put in as extra.

Bess Brown, night operator at Brooklyn, was married September 10th to Edwin Colgroves of Dayton, Ind.

In the October BELL TELEPHONE NEWS appears an article on the large telephone development at Madison, Wis. Manager Severson of Crawfordsville rises to remark that Crawfordsville, with a population of 9,000 and 2,910 telephone stations might be in the same class.

Francis Edward, local operator at the Bell exchange at Crawfordsville, was transferred to the former independent exchange as toll operator.

Inside equipment has begun to arrive in Crawfordsville and it is hoped to complete the final consolidation of the two plants by the end of this year.

All of the Frankfort regular operators are again on duty for the first time for several weeks. Gazelle Waldo and Florence Volz have recovered from illness and are again able to be on duty. Bertha Emshoff has returned from her vacation and the force is complete.

Margaret Kelly of Chicago, formerly night chief operator at Frankfort, walked from Chicago to Frankfort on a wager. She was ready to go back on a Pullman car.

Eva Hogue has been promoted to chief operator at West Terre Haute, succeeding Della Barton, who was recently married. Idella Hurst and Cecil Morgan have been promoted as the result of Miss Hogue's elevation.

Mattie Harms, chief operator at Terre Haute, has been taking her vacation.

Ray Van Valey, formerly night chief operator at Terre Haute, but for the past two years chief operator at Fort Worth, Tex., has accepted a position as night operator at the Main Exchange.

Catherine Vaughn, local operator at the Main Exchange, Terre Haute, has resigned and leaves for Florida to make her home. She expects to obtain a position with the telephone company at that place.

Jeanette Waterford, local operator at Bloomington, resigned October 1st on account of ill health. She was succeeded by Edna Reeves.

Grace Waterford, local operator at Bloomington, resigned October 5th.

Ruth Livingston, local operator at Bloomington, was married September 11th to Talmage Hawkins. Mrs. Hawkins will continue with the company for some time.

Minnie Groh, local operator at Bloomington, returned to duty September 28th, after an absence of six weeks.

Harriet Livingston, local operator at Bloomington, resigned October 1st. She was succeeded by Grace Stanley.

Mattie Fields, toll operator at Washington, has returned after spending the summer in South Haven, Mich.

Helen Dougherty, chief operator at Washington, has returned to work after spending a two weeks' vacation at Indianapolis, Chicago and Fort Wayne.

Stella Beatty, toll operator at Washington, spent her vacation at West Baden and Indianapolis.

Sula Gregory, supervisor at Washington, spent her vacation at St. Louis, Chicago and Milwaukee.

Cecelia Brown, toll operator at Washington, has resigned. Miss Brown recently en-



TELEPHONE OPERATORS

and Stenographers

Save Your Clothes

By wearing our new Ideal

Circular Skirt Apron

REASONS WHY

*Entire length covering skirt.
It fits perfectly in back, fastening down side as in illustration.*

Some day you will wear one, why not now?

Made of good quality black sateen. Any waist measure to order. Stock sizes 22 to 30 in. for immediate delivery by Parcel Post, 75c prepaid, anywhere in U. S. or Canada.

Extra Offer—12 Carmen Hair Nets, 1 Circular Skirt Apron, for \$1.00.

MAIL YOUR ORDER TODAY

WANTED Women Demonstrators in every office in Michigan, Wisconsin, Indiana and Illinois, to take orders. Good money made during spare hours. Write for sample enclosing price of apron.

CHAS. SCHIFF

423-25 W. 63rd St.

Chicago, Ill.

ELECTED!

By an overwhelming majority—

Western Electric Telephone Apparatus and Supplies

have been selected for offices all over the country on a platform of certain continuous service.

Tell the telephone men in your territory why the use of WESTERN ELECTRIC material means success.

You know—they ought to know.

The right time is now!

Western Electric Company

tertained the operators at her home. A pleasant evening was enjoyed. Clara Zinkan has taken Miss Brown's place.

Effie Meyers, local operator at Washington, has resigned, Helen Williams taking her place.

Lillian Williams, local operator at Washington, was married September 30th to Lumen Mickey of Vincennes.

Rose Clements, local operator at Washington, left for Indianapolis, where she will make her home.

Ethel Bowling, local operator at Washington, has been promoted to assistant supervisor.

The Vincennes force has recently installed a private branch exchange in the plant of the Rolling Mills Company, connecting up eight different departments.

A Ford auto has been purchased for the plant department at Akron.

Due to a lack of rain last summer at Bloomington, the water supply was almost exhausted. Water was hauled in from the springs east of the town to run the exchange and distilled water was shipped into Bloomington for drinking purposes. Announcement was made by the Water Company that the water would be turned on once each week, the company reserving only a quantity sufficient to handle any fire emergency.

A copper circuit and phantom have recently been completed between Washington and the exchange of the Cumberland Telephone and Telegraph Company at Petersburg. This circuit provides a more direct outlet to points in Southwestern Indiana and is expected to become a very busy part of the toll system.

The construction department is engaged in stringing a copper circuit and providing a phantom between Indianapolis and Anderson.

A new copper circuit was placed in service during September, between Auburn and Waterloo test station.

Helen Wampler, night operator at Bloomington, resigned October 11th to take another position. She was succeeded by Bertha Groh, toll operator.

Mrs. Frank Rolen, of Terre Haute, gave a birthday supper October 8th for her husband, Frank Rolen, of the plant department. Covers were laid for twelve. A three-course supper was served. Among those present were Mattie Harms, Nellie Smythe,

Agnes Smythe, Jessie Short and Nora Schuell of the traffic department.

Ohio Division

**B. T. Calaway, Correspondent,
Columbus**

Akron District.

B. Stowell, toll wire chief, has had his headquarters moved from Akron to Cleveland.

E. J. Hirt is the new plant chief at Akron. Mr. Hirt comes from the Central Union Telephone Company at Zanesville.

Maurice Starna, wire chief at Akron, has been transferred to Mansfield as plant chief.

J. F. Glosser, former plant chief at Mansfield has been appointed manager at Elyria. M. W. Starn, wire chief at Akron, has been transferred to the position of plant chief at Mansfield.

The Akron switchboard has very recently been increased from 3,100 lines to 5,600 lines.

On account of increased business in the plant department at Akron, T. L. Sinnock of Massillon is assisting in the capacity of test man.

The Doylestown Telephone Company is moving its exchange into a new building and replacing open wire with aerial cable.

F. J. Harley, assignment clerk, Akron, was recently married to Cora Van Buskirk, operator at Akron. They are now residing at 505 Berg Street.

Mrs. Lyda Frisbee, F. S. Sheeders and Ralph Perkins have taken positions as collectors at Youngstown.

A recent checker tournament between H. O. Newcomb, state champion, and other players, at the Y. M. C. A. at Akron, conducted by John I. Roberts, commercial agent of the Central Union Telephone Company, with the Knights of Columbus at Mansfield, over the Morse circuit, resulted in one game for Akron and two draws. These games were played in the presence of a large crowd at both ends of the line and received favorable comment by the newspaper reporters in attendance.

George W. Wymer of the Toledo District has been made district foreman of the Akron District.

Several of the commercial employees of the Akron exchange were recently entertained at the home of Miss Judson, assistant cashier.

Through the efforts of John I. Roberts, commercial agent, private branch exchange contracts have recently been secured at Akron for the following firms:

No. 2, East Ohio Gas Company.

No. 1, C. E. Mills Taxicab and Transfer Company.

No. 1, Realty Benefit Company.

The Plant Department is planning to replace the No. 101 switchboard with type No. 4 switchboard of larger capacity for the Miller Rubber Company and the International Harvester Company at Akron on account of increase in stations at these plants.

Elizabeth Carr and Nellie Norton have taken positions as clerks at Youngstown.

On account of the rapid growth of the city of Akron, two and one-half miles of underground cable have recently been put into service on East Market street and the work of dismantling the old aerial lead on this street will begin in the near future. The underground in the south end of the city has also been extended one mile further, thus putting two miles of cable into service. To accommodate the increased toll business, four additional positions of toll board have been put in.

The Madeconla exchange has recently been moved to larger and more pleasant quarters, much to the satisfaction of Mrs. A. L. Scott, the operator in charge.

At Akron, J. H. Strauch, equipment foreman, has recently completed the installation of an eight-position multiple board carrying 284 sub-stations and twenty-one trunks, for the B. F. Goodrich Rubber Company. This is the largest private branch exchange in the State of Ohio.

P. J. Hein of the construction department has been made line foreman at Akron.

E. J. Hirt, plant chief at Zanesville, has been transferred to Akron as plant chief.

Pauline Karkamen, local operator at Akron, was recently married to Mr. Landerberger.

Laura Jones, operator at Akron, has been off duty on account of sickness.

Chillicothe District.

Ada Baker, traffic chief at Hillsboro, resigned on October 15th to accept a position as bookkeeper for the Hillsboro Bank and Savings Company. Miss Baker has many friends among the Central Union employees, who are sorry to see her leave.

Stella Brouse, local operator at Hillsboro, has been promoted to the position of traffic chief, succeeding Ada Baker, resigned. Miss Brouse is succeeded by Nettie Lovett.

Nellie Ochs, collector at Hillsboro, was awarded the piano given away through the Hillsboro Merchants Commercial Contest on September 24th. Miss Ochs has been with the Central Union for the past four years.

Columbus District.

The following new private branch exchange contracts were secured during September:

Boston Store (intercommunicating system) No. 2 board, one trunk, five stations.

Hoover-Rowlands Company (intercommunicating system) No. 2 board, one trunk, five stations.

Case Crane Engineering Company, No. 1 board, two trunks, four stations.

Higgy Company, No. 1 board, one trunk, six stations.

The record for new contracts was broken during September in Columbus by the writing of 700 orders with annual rental amounting to \$16,346.25. This is \$2,000 more rental than was ever secured in one month at this exchange.

The new issue of the Columbus directory has been received. It is expected that about 22,000 copies will be distributed.

R. S. Skeels, commercial agent in the Columbus exchange, was married October 14th to Helen Harding, daughter of Rev. Phillip Edward Harding, pastor of the Congregational church of Windham, Ohio.

Helen Holler, stenographer at the Columbus exchange, resigned October 15th, to make a visit of several months with relatives in Lincoln, Neb.

William Webster, commercial agent, was transferred from Columbus to Springfield, September 1st.

Toledo District.

Mabel Lonsaway, clerk in the commercial department at Fostoria, resigned and is spending a few weeks in Des Moines, Iowa.

Rhea Daugherty, clerk in the manager's office at Toledo, has resigned to take up other work.

N. B. Penny, manager of the Crescent Telephone Company at Weston, Ohio, has resumed work after an illness of several weeks.

Bell employees at Sandusky enjoyed an outing at Winnebago Park August 14th. Among the amusements was a 100-yard dash for men; cracker eating contest; men's three-legged race; ladies' race; ladies' potato race; ladies' needle race; men's high jump; pipe-filling contest; tug of war for men; tug of war for ladies. Among those participating in the outing were: Mr. and Mrs. M. J. McCabe and family, Mr. and Mrs. S. E. Dietz, Mr. and Mrs. J. C. Leedy and family, the Misses Minnie Giesler, Millie Eggert, Leona Schnell, Ada Martin, Lettie McCudden, Norma Murschell, Idabell Missig, Alma Coles, Mabel Guckert, Nellie Bauman, Alma West-erhold, Marie Bitzer, Mary Harris, Harriet McLaughlin, Jeanette Yerges, Helen Spathelf, Leona Heminger, Mary Freitas, Mabel Car-ro, Gertrude Goodwin, Lydia McCann, Alice

Freitas, Cora Smith, Margaret Lamb, Mar-jorie Butler, E. Miller, Alicia Herring, Rhea Birkmeyer, Lucy Ryan, Ada Flowers, Heth-lyn Best, Adaline Schoepfle, Helen Cline, Irene Faulhaber, Loretta Weis, Edna Eggert, Ruth Crossen, Hattie Payne, Bessie Mc-Grannigan, and the following girls from out of the city who are detailed to this office during the summer months: Lola Birch of Marion, Myrtle Littler and Gustie Kunz of Toledo and Hazel Bratton of Akron; also Messrs. Ed McGory, Charles Roberts, Meritt Wadsworth, R. J. Hartman, Albert Best, Albert Fehr, George Speigel and Carl Brown.

Allie Penny of Weston, Ohio, has been ap-pointed supervisor at Bowling Green.

The traffic employees of the Fostoria ex-change held a picnic on September 16th at Meadow Brook Park. A picnic supper was served, after which music and dancing were enjoyed.

Myrta Hale, operator at Fostoria, was mar-ried on September 14th to Earl Green, of Fostoria. The traffic employees presented Miss Hale with a set of silver tea spoons.

Mrs. John Schouhardt, one of the rural subscribers of the Sandusky exchange, pre-sented the traffic employees with a large basket of fruit, which was very much appre-ciated.

A shower was given on October 2d at the home of Leona Bruhl, in honor of Millie Wil-liams, operator at the Toledo-Collingwood office, who was married on October 8th to Martin Vanger. The Collingwood force pre-sented her with a beautiful cut glass water set.

Mae Fern Carl, toll operator at the Toledo exchange, resigned on October 7th to be mar-ried.

Wisconsin Division

**F. M. McEniry, Correspondent,
Milwaukee**

Organization Changes.

F. J. Mayer, district manager, Madison district, has been appointed to the position of district plant chief of the Milwaukee dis-trict.

Thomas Berry has been appointed to the position of district foreman of the Milwau-kee district, reporting to F. J. Mayer.

C. L. Miller, district manager, Janesville district, has been appointed to the position of district manager, Madison district.

J. A. McManman has been appointed to the position of district manager, Janesville dis-trict.

Appleton District.

The installation of the new three-position switchboard at Algoma was completed August 22d. The cut-over was made on the night of Tuesday, August 19th, by R. Parvis of the state equipment department, of Milwaukee. The cut-over was completed in five hours, the first line being cut over at seven and the final cut shortly after midnight. A twenty-line toll test panel was also installed at Algoma, which makes it more convenient for handling toll-line troubles.

F. J. McCormick, recent manager at Ap-pleton, has been promoted to the division engineer's office at Milwaukee. D. E. Gaff-ney has succeeded Mr. McCormick as man-ager at Appleton.

Emilia Bretlung, billing clerk at Appleton, has been away for a two weeks' vacation. Irene Kottke, chief operator at Appleton,

spent a two weeks' vacation at her home in Fond du Lac.

Clara Smith, operator at Berlin, enjoyed a week's vacation at home.

Myra Jenkins has been employed as night chief operator at Berlin, succeeding Julia Latoski, resigned.

Lyle Hess has been employed as Western Union messenger at Berlin, succeeding James Keough, resigned.

George Wittey, wire chief at Manitowoc, spent his vacation at Three Lakes.

Susie Pfeffer, operator at Manitowoc, spent her vacation touring the country around Lake Winnebago with an auto party.

Marle Umhoefer, operator at Manitowoc, spent her vacation at Whitelaw.

Evelyn Hall, operator at Manitowoc, spent her vacation at Manistee, Mich.

Martha Gretz, operator at Manitowoc, has resigned. Elma Houghton is filling the va-cancy.

Helen Sharkey, assistant chief operator at Marinette, resigned to engage in other work, and is succeeded by Winifred Lovejoy, a former employee of the Marinette exchange.

Myra Nelson, assistant chief operator at the Neenah-Menasha exchange, has returned from a two weeks' vacation spent at Superior and Duluth. While there she visited the dif-ferent exchanges.

Pauline Peterson, operator at New Lon-don, spent her vacation at Weyauwega and other points.

Clara Buckholtz, operator at New London, spent her vacation at Red Granite and Ripon.

Neva Haynes, chief operator at Omro, has returned to her duties after a month's ill-ness.

Hazel Luscombe has been employed as clerk at Omro, to succeed Bernice Mills, re-signed.

Emily Zemke, traffic clerk at Oshkosh, re-signed to be married. Miss Zemke will marry R. E. Taylor, of Gary Ind., and will reside at that city.

Helen Barnett has resigned as toll opera-tor at Oshkosh and is succeeded by Edna Rantz.

Edith Johnston, operator at the Sturgeon Bay exchange, resigned her position and re-turned to her home at Oconto, where she was married to George Ottson, of Milwaukee, on Wednesday, September 3d. Mr. and Mrs. Ottson will make their home in Milwaukee.

Luella Batchelder, chief operator at Stur-geon Bay, spent her vacation visiting rela-tives at Rhinelander, Wis.

Solicitor La Chapelle secured a contract for a cordless private branch exchange, two trunks and eight stations for the Gazette Publishing Company at Green Bay.

During September, Solicitor Perrin secured a contract from the Percy fur house, Osh-kosh, for a cordless private branch exchange, No. 1 board, two trunk lines and four sta-tions.

Eau Claire District.

Ida Yost, chief operator at Hudson, has returned from her two weeks' vacation which she spent visiting friends.

Ben Hanson, foreman of crew which has been doing repair work at Hudson, has com-pleted his work and is now located at Berlin.

J. P. Brennan and Henry Schroeder, of Mil-waukee, held a plant meeting at Hudson September 26th and 27th, at which plant routine under centralized accounting was dis-cussed.

W. F. Hallfrisch, manager at Ashland, spent a two weeks' vacation in the southern part of the state. While there he visited the Milwaukee office.

Jennie Harrington, assistant chief opera-tor at Ashland, has resigned and accepted a position as toll operator with the Duluth Tel-

Sterling
Contractors'
Barrow

Built to give and gives the kind of service which contract-ors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction. It will hold over twice the load of ordinary pan-shaped barrows and will oulast two similar style barrows of any other make.

Among its desirable features are:

Channel steel legs—16 gauge steel tray—angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Pat-ented, self-lubricating wheel, etc.

Don't fail to get the Ster-ling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in con-struction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchange-able and can be furnished in any style to suit your requirements.

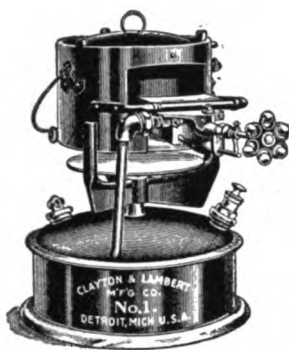
Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



SAVING MONEY IS A HABIT



No. 1 FIRE POT
Price, each, \$6.00 Net

By using C. & L. Fire Pots and Torches, you save both time and money. Made of the best materials, by expert skill. It pays to buy the best, thereby saving time and trouble. Every C. & L. Fire Pot and Torch is tested with air and gasoline burning, and if operated in accordance with directions, will give the user splendid satisfaction. All burners are made of special generator metal, retaining the heat longer, and all torch tanks are made of heavy, seamless drawn brass.

Sold everywhere under the maker's guarantee.

All leading jobbers will supply at factory price. Cash must accompany the order if sent to the factory.

Send for Catalog—it's free.

CLAYTON & LAMBERT MFG. CO.
Detroit, Mich., U. S. A.

"Beldenite" Rubber Insulated Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wire—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue, CHICAGO

Fastenings easily and quickly made

When attaching electrical fixtures or apparatus to hard substances such as brick, stone or concrete make sure they are going to remain securely in place—use

SEBCO

Expansion Bolts or Screw Anchors—they can't loosen or pull out. The jaws expand, embedding themselves in the material.

Send for Samples and Catalogs.



STAR EXPANSION BOLT CO. 147-149 Cedar St. NEW YORK

phone Company. Friday evening, September 19th, a farewell party was given for her at the home of Agnes Carlson, a local operator. Miss Harrington was presented with a beautiful lavalliere by the employees. Agnes Johnson succeeds Miss Harrington as assistant chief operator, and Grace Jacks, formerly relief operator, has been promoted to local. Lillian Buchholtz begins her duties as relief operator.

Ether Erickson, night operator at Ashland, visited friends at Ironwood and Hattie Zinnecker spent her vacation at home.

Louise Braun, toll operator at Merrill, spent a two-weeks' vacation touring the east, where she also attended the Rexall convention.

Hazel D. Fagon, local operator at Merrill exchange, enjoyed a two-weeks' vacation visiting friends and relatives at Grand Rapids, Nekooosa and Wausau.

Lena Ruder, local operator at Merrill, spent a two-weeks' vacation with relatives and friends at Laona.

W. H. Cushman, traveling solicitor, spent the past few weeks in Merrill.

H. L. Tyson resigned as manager at Chipewaga Falls to engage in other business. He is succeeded by F. E. Schoenhofen, transferred from the plant department at Milwaukee.

A ten-station No. 1 private branch exchange has been installed at the Waterman Ehrhard Company at Menomonie.

The plant and traffic departments of Menomonie held their third meeting in the manager's office on the evening of September 26th. Glenn Howe, manager, gave a talk on "Centralized Accounting" so all the employees would be more familiar with the new system of collecting accounts after October 1st. Mr. Brennan of Milwaukee was also present. After the discussion a luncheon was served by the operators. The remainder of the evening was spent in telling jokes and stories.

Cupid has again found his way into the Menomonie Exchange. The engagement of an operator, Mable Giese, has been announced.

Janesville District

Wade L. Cash, formerly assistant wire chief at Beloit, has been promoted to manager of the Evansville exchange. J. C. Murray, former manager, has been transferred to the Beloit position vacated.

A cyclone struck the Janesville-Rockford toll line, seven miles north of Beloit on Fri-

day, October 10th, at 4:30 p. m. A quarter of a mile of line was ripped up completely and carried across the road into the Rockford and Interurban trolley track and high tension line which went down before the storm. Service was restored by the following morning. No one was killed in this storm, although some were injured when several houses collapsed, and the loss of live stock was heavy. An insulator unbroken was picked up a quarter of a mile from the line. The usual freaks caused by such storms were evident everywhere.

B. H. Textor, right of way agent, is working at Beloit. The material for enlarging this exchange is arriving and work will proceed at once. \$42,000 will be expended in adding over 80,000 feet of cable. This exchange was rebuilt two years ago and today is practically filled in the cables. The exchange has shown a wonderful growth of twenty-five per cent. in the last year. Over 200,000 feet of twisted wire has been strung in this time to get the new business. Considerable additional underground will be added.

A contract has been made with the Hotel Hilton at Beloit for seventy-five stations, replacing foreign equipment.

A contract has been made for a private branch exchange to be installed in the new Beloit General Hospital at Beloit.

Lou Nagell has been employed as lineman at Beloit succeeding Harry Phillips, resigned.

Madison District.

B. C. Hamilton, Madison district plant chief's clerk, spent a week's vacation in Chicago and Milwaukee.

V. W. Deist, former manager at Horicon, has been promoted to the position of district commercial agent of the Madison district, succeeding Joseph Schoen, transferred to local commercial agent. Mr. Deist was succeeded by C. E. Mayer, formerly employed in the plant department at Madison.

E. L. Dexter, manager at Waupun, has been transferred to the position of manager at Merrill. He has been succeeded by J. F. Browne, formerly of the plant department at Madison.

John Scherer, Jr., has been promoted from the position of installer to frameman at Madison.

E. L. Rogan has taken the position of Morse operator at Watertown, succeeding Mrs. Elizabeth McDonald, resigned.

Fred Farnum, formerly working under C. W. Wilson on exchange construction, has accepted the position of repairman at White-water.

A. E. Snell, former wire chief at Beaver Dam, has been promoted to the position of manager at Fort Atkinson, succeeding L. F. Copeland.

Mary McGowan, formerly toll clerk at Madison, has resigned, as she is about to be married to Professor E. Meyer of the horticultural department of the University of Wisconsin. Miss McGowan has been succeeded by Lillian Coster.

Marle Felber, toll chief operator at the Madison exchange, resigned on September 1st and was married September 30th to George Boland, of the plant department, Milwaukee. Miss Felber has been succeeded by Etta Soelch.

Agnes Kraft, toll supervisor at the Madison exchange, who resigned recently, was married September 30th to Joseph Titloy.

A. M. Thomas, Morse operator at Baraboo, has returned to work after spending several weeks' vacation visiting places of interest throughout the state.

Floyd Crosby, formerly testman under Foreman L. W. Kelly, of the state construction department, has been promoted to the position of wire chief at Beaver Dam.

On Tuesday, September 16th, J. P. Brennan and W. E. Schroeder, of Milwaukee, held a plant meeting at the Madison exchange, which was attended by the plant employees of the Baraboo, Stoughton and Madison exchanges. Various items of plant interest, changes in specifications, etc., were discussed.

E. G. Comfort, matron at the Madison exchange, has returned to work after spending several weeks on her vacation at Chicago, Indianapolis and various other points.

Esther Kolstad has taken the position of Morse operator at Columbus, succeeding Beatrice Peterson, who has been transferred to Lake Geneva.

Constance Mickelson, chief operator at Stoughton, left the service on October 1st to be married. Nellie McComb succeeds Miss Mickelson.

Milwaukee District.

Cupid was quite severe when he invaded the Milwaukee toll operating room this summer and captured Adele Hanke, assistant chief operator; Genevieve O'Brien, super-

You Can Save Time and Money



By Equipping Your Office With **UNEDIT CLIPS**

They are easily applied, hold securely and will reduce your mailing and filing expense.

Manufactured by

Buffalo Machine Mfg. Co.

1354-1362 West Ave.

Buffalo, N. Y.

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of
ELECTRICAL HARDWARE
PLAIN and GALVANIZED



Pole Steps

Braces, Back and Cross Arm
Break Irons
Bolts, Arm and Eye and Thru
Cable Racks and Hooks
Guy Rods and Clamps
Hub Guards

Pole Steps and Brackets
Pole Balconies
Pothead Supports
Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc.

visor; Agnes Kirschborn, supervisor; Elsie Kamrath, supervisor; Lillian Egan, supervisor; Alice Dalley, clerk; Mamie Mollenbeck, operator, and Edna Schuler, operator. These girls were valuable operators and their loss was keenly felt. However, best wishes for a bright and happy future were sent with them and several pretty affairs were arranged for them by the girls of the toll room.

Cleveland Division.

W. K. Lawrence, Correspondent.

Electrical Baseball League Banquet

Friday evening, October 10th, the officers and managers of the teams representing the Electrical Baseball League of Cleveland, held a banquet at the Hofbrau.

After the dinner the business affairs of the league were discussed and the Cleveland Electric Illuminating Company's team, which landed in first place, was presented with a beautiful cup, and each member present with a leather purse.

President Jack Davis said that while the league was only composed of five clubs this year, and that the games were well patronized, that next year the league would in all probability be composed of eight clubs, bringing in the Western Electric Company, Erner Electric Company and Cuyahoga Telephone Company. The teams this year finished as follows:

1. Cleveland Electric Illuminating Co.
2. Cleveland Telephone Company.
3. Western Union—Linemen.
4. Western Union—Operators.
5. Postal Telegraph Company.

Personals

Helen Gibson, operator at the Doan office, resigned September 30th.

Miss Van Eman, operator at Doan office, was promoted to supervisor.

Della Letoerneau, Mary Carlin, Geraldine Smily, Margaret Fergus, Fanny Ely and Miss English had dinner Sunday, October 12th, with Marie Klein, desk operator.

May Manadabaugh, supervisor at Doan office was promoted to instructor.

Maud Hauswald, timekeeper in the traffic superintendent's office, who has been ill for some time, resumed her duties.

Anna Golden, operator at Doan office, has been promoted to supervisor.

With Commercial Agents

A. E. Bodmer secured a contract for a private branch exchange from the Sheets Brothers Elevator Company, 6529 Broadway avenue, S. E. The equipment will consist of a cordless switchboard, two trunk lines and seven stations.

A contract for a private branch exchange which will consist of a cordless switchboard, two trunk lines and eleven stations was secured by Charles Ellert from Gage, Wilbur & Wachner, 617 Cuyahoga building.

Through the efforts of I. W. McKee, a contract was secured for a private branch exchange from E. Sperling Company, 1211 East Ninth street. The equipment will consist of a No. 4 switchboard, one trunk line and six stations.

Charles Ellert secured a contract for a private branch exchange from A. J. Watt, 226 St. Clair avenue. It will consist of a No. 2 switchboard, one trunk line and six stations.

Michigan Division

David H. Dodge, Correspondent,
Detroit

Installers' and Linemen's Meetings in Detroit

Two meetings of installers and linemen, called for the purpose of explaining the routine of the new plant accounting, were held October 3d and 4th. About eighty men attended at each meeting. J. J. Browne, plant accountant; Martin Ewald, Detroit district plant chief, and J. W. Bisbee, installation foreman, gave short talks. The men were informed by Mr. Browne that this new system of centralized plant accounting, originally devised by C. L. Boyce, Michigan plant superintendent, has been adopted by the five companies of the middle west as standard, and he said it therefore behooved Michigan men to do their utmost to master the easy routine and make the success of the plan especially conspicuous here. Everybody realized that this, aside from the interest in the work, was an additional incentive. The

men were also earnestly exhorted by the speakers to keep up a high standard of co-operation among the departments of the company.

Similar meetings to discuss the new plant accounting have been held in Grand Rapids, Saginaw, Marquette, Kalamazoo and Jackson.

Death of Mae Sherman

MAE SHERMAN died of nephritis September 21st, aged twenty-five. Miss Sherman entered the Detroit training school for operators as instructor, November, 1910, having been previously employed as private exchange operator in the Library Park Hotel. In May, 1912, she was transferred to the Chicago operators' school, where she remained until June of this year, and was then obliged to take leave of absence on account of poor health. During the month of July, Miss Sherman substituted at the Pontchartrain Hotel house board, but was soon obliged to give it up. Last September the telephone company was notified of her precarious condition. On September 20th Miss Sherman was moved to Harper hospital, where she quietly breathed her last at 4:30 on Sunday morning.

Mr. Slack's Meetings

A very interesting meeting of the Detroit commercial men was held September 24th. About sixty-five men attended and when the meeting adjourned there were sixty-five better informed men ready for duty. C. S. Slack, district commercial manager, addressed the gathering and talked so interestingly that the hour and a half seemed shorter than the usual lunch hour. After this an informal discussion took place and at 11 o'clock showed no signs of abatement. Mr. Slack will impersonate the subscriber at the next meeting, but it is likely that every question propounded will be answered satisfactorily.

Detroit District.

R. J. Hall has been transferred to the collection department, Ben S. Williams taking his place.

The social event of the season is scheduled to take place November 4, 1913, when the Telephone Society of Michigan will give its annual dance. Elaborate preparations have been made and many of the electrical effects

Partridge & Anderson
Designers Engravers
Electrotypers Stereotypers
ENGRAVINGS IN THIS PUBLICATION
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
100-16 N. Fifth Ave. Chicago
AUTOMATIC 31-757 31-758

ELECTROSE
TRADE MARK
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES
INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS
No. 2 No. 1 No. 7
No. 305 New No. 10 Old No. 10
LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
66-72 Washington St. BROOKLYN, N. Y.
66-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

will be new and startling. Leora Stevens, chief operator of the Walnut office, will render several vocal solos. An account of this dance will be contributed for the December issue of BELL TELEPHONE NEWS.

E. K. Ford, of the commercial department, who has been connected at various times with all three departments of the Michigan State Telephone Company, leaves this month for San Francisco, to the regret of his associates in Mr. Welch's office. Mr. Ford has proved himself a very likable fellow.

Eastern District.

Effective April 1st, the Carleton exchange of the People's Telephone Company commenced checking Willow.

Toll station at Wolf Lake, Jackson County, destroyed by fire September 20th, will not be reopened this winter.

The Jackson service has been improved by the careful instructions given to the operators by Elizabeth Kaiser, a local supervisor of the Main office in Detroit. She spent two very beneficial weeks in Jackson.

Myra Klopp and Beulah Mosher have been transferred from the Lansing to the Jackson exchange. They take positions as local operators.

A number of toll and local operators spent an enjoyable evening at the home of Nora Gilbert, September 10th.

Florence McMillan, private exchange operator at the Otsego hotel, Jackson, has returned to her duties after a week's illness.

Iva Hills has returned to the local department at Jackson after filling the position of private exchange operator at the Standard Electric Car Company for two weeks.

H. McCarn has been transferred from Iron Mountain, Mich., to Mt. Clemens, and holds the position of test man.

R. S. Moore, formerly wire chief, is now foreman for the Mt. Clemens exchange area.

C. Beard, repairman at Mt. Clemens, has returned from a week's vacation from Cleveland, Ohio.

Ben Schields of Mt. Clemens spent a week's vacation in the north on a hunting trip.

Mabel Duckwitz, chief operator at Mt. Clemens, has resumed her duties, after a vacation of two weeks spent in Detroit.

Clara Wales, toll operator at Mt. Clemens, has returned from her vacation.

Irene Furtah, local operator at Mt. Clemens, enjoyed a week's vacation at Detroit.

Emma Murr, local operator at Mt. Clemens, spent a week's vacation at Port Huron and Detroit.

The Blue Bell Club is making preparations for the annual dance, which will be held some time in November at Mt. Clemens. This party promises to be the best ever.

A record-breaking conversation took place at the Mt. Clemens exchange when two local subscribers held the line for two hours and nine minutes. The weather has cleared and the days are considerably warmer since.

Cards were received by the girls from Mrs. Louis Blank, formerly Clara Barck, evening chief operator at Mt. Clemens, from Washington, D. C., where she spent her honeymoon.

Ruth Cornell, stenographer for the manager of the Mt. Clemens exchange, enjoyed her vacation in Erie, Pa., and Buffalo, N. Y. She took up her work October 20th.

C. F. Hibbard, Jr., has been appointed manager at Ann Arbor, succeeding C. J. Given, resigned.

A. T. Baker was checked in as manager at Ypsilanti, October 13th. Mr. Baker has been manager at Sault Ste. Marie in the upper peninsula.

E. E. Michael has been checked in as manager at Sault Ste. Marie, succeeding A. T. Baker, transferred to Ypsilanti.

Grand Rapids District.

Hunt and Trainer have succeeded L. McBain as managers of the Mackinaw City exchange.

The toll station at Pokagon was discontinued September 8th on account of fire. This station will be made a class D office on Dowagiac.

A new toll station has been opened at Plainfield Club. This station is located on circuit 1836, one-quarter of a mile from the present toll station at Austerlitz, in the Grand Rapids Auto Club house. The Grand Rapids Motor Realty Company are the managers.

W. H. Sandenburgh has succeeded Mrs. Hattie Darstow as manager of the Onkema exchange.

The toll station at Fouch, Lee Lanau County, on circuit No. 2507, has been reopened. Fouch is checked by Traverse City. A. J. Herbert is appointed manager.

Peter Godfrey has succeeded Warren Fogelson as manager of the Freeport toll station.

N. O. Hodge has succeeded W. H. Lillie as manager of the Oakfield Center toll station.

A toll station has been opened at Gilbert. This station is two and one-half miles from White Cloud, and is located on circuit 1851. Manager, Grand Rapids Garbage Holding Company.

The Rapid City toll station has been discontinued. This station should now be listed as class D on the Alden exchange of the Traverse Bays Telephone Company.

The toll station at Bagnall was destroyed by fire July 30, 1913, and as the store was entirely burned and there is no residence near the lines, this station will be considered as discontinued from that date.

Effective September 26th, Florence Campbell succeeds Della Crans as manager at Martin.

Emma Palmer, chief operator at the Main exchange, Grand Rapids, and her sister, Amelia Palmer, official pay station attendant, Grand Rapids, spent their vacation in and about Detroit. They spent most of their time on a farm. Miss Emma is a fancier of fine driving horses.

Mary Osborne, chief operator at the Grand Rapids South exchange, spent her vacation in Ionia, Mich.

Sadie Neil, toll chief operator at Grand Rapids, spent her vacation rusticated near Grand Haven, fishing at Olivet and "urbanating" at Detroit. The hook and line appeal to Miss Neil and many a week-end this summer has found her in a quiet fishing spot, line in hand.

Jane Mayer, local operator at the Main exchange, Grand Rapids, resigned her position October 1st to return to the University of Michigan at Ann Arbor, where she is a student of the literary department.

Olga Christenson, information operator at the Main exchange, Grand Rapids, resigned her position October 1st to resume her studies at business college.

On September 23d Grace Pritchard, a Kalamazoo local operator, slipped quietly away from her switchboard position and became the bride of A. J. Knudson, a Chicago actor. Although the climax to this "skit" came suddenly and unexpectedly, it was not as secretly worked out as the principals had hoped, for the word was passed out in some way and a goodly number of her business associates were present to lend a hand. The bride came back and is again at the board with her charming "Number, please," having been off duty but a little more than a couple of hours. This romance resulted from a

series of frequent visits Miss Pritchard made to Chicago. She went under the very logical pretext of visiting her father.

Hazel Mitchell, chief operator at Muskegon, and John Kamhout, of Grand Haven, were married at Muskegon. Belle Howell has been appointed successor to Mrs. Kamhout.

The Atwood toll station was discontinued October 1st and should be listed in the tariff and route book as Class D on Ellsworth. Atwood was in the territory of the Traverse Bays Telephone Company under contract, and as they are now able to handle this business, we are discontinuing our station.

Marquette District.

McLeod Lumber Company succeeded the Hudson Lumber Company as managers of the Garnet toll station September 1st.

The toll station at Felch has been discontinued. This toll station can be reached only from Metropolitan, one mile east.

The toll station at Fryors Farm, on circuit No. 5410, has been discontinued.

A toll station has been opened at Mastodon June 3, 1913. This station is located on circuit No. 6206, four and one-half miles from Crystal Falls. Manager, Charles E. Lawrence. Mining companies are beginning operations at this point.

Saginaw District

The Arenac toll station located in Arenac county was discontinued September 19th. This section of Arenac county is served by farm lines out of Omer, the exchange of the Omer Telephone Company.

Maple Ridge toll station in Arenac county has been discontinued and should now be listed in tariff and route book as "Check Prescott," as Maple Ridge is reached by farm lines connecting with Prescott.

Mrs. L. E. Berry, cashier at Cheboygan, resigned during October, to join Mr. Berry, who is connected with the construction department at Monroe. S. Herman Kriedeman, collector at Cheboygan, has been advanced to the position of cashier, left vacant by Mrs. Berry's resignation. Yvonne Raussin has been appointed collector at Cheboygan in place of Sherman Kriedeman.

H. F. Allman has been checked in as manager at Alma, succeeding J. C. Gossett, resigned.

C. A. Gates, general manager of the Southwestern Telegraph and Telephone Company, of Dallas, Tex., spent his vacation in and around Saginaw. His friends might question him as to one particularly successful fishing trip.

The Jackson Church Company, Saginaw, ordered a private branch exchange during September.

Saginaw made a net gain of thirty-four stations during September. Collections are the best they have been for years.

The Philomene girls of Port Huron gave a dinner for two brides-elect at the Elks' temple, October 1st. Kathleen Dwyer, chief operator, who is to be married to Boyd Whiting, of Ashtabula, and Mabel McMonagle, another former member of the exchange force who is to be married to William O'Brien, of Port Huron, were guests. Each was presented with a prettily decorated bride's book.

Gladys Biddlecomb has been promoted from local operator to toll operator at Port Huron.

Adah Parker has been promoted from relief toll operator to day information operator at Port Huron.

Hazel Sumner has been promoted from local operator to day supervisor at Port Huron.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

National Pole
Company

Esconaba, Michigan

When you want a Lock
you want the best.

EAGLE
LOCK
CO.

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



"Thomas Quality"
Porcelain Insulators

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

Offices in all principal cities

"Always Reliable Torches"

Are the best on the market. They
are thoroughly tested before leaving
factory which
enables us to
guarantee them



Fitted with
PATENTED
"never
leak" pump
and PAT-
ENTED
"one piece"
soldering iron
rest.

Burners on
No. 25 and No.
26 torches
generate gas
much quicker
than other
burners, enab-
ling the user to
obtain a blue
flame in a short-
er time.

We also manu-
facture a com-
plete line of fur-
naces especially adapted for the use of
telephone and telegraph companies.
Manufactured by
OTTO BERNZ, Newark, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.

ASK
YOUR DEALER
FOR



WASHINGTON FIR
YELLOW PINE
CREOSOTED

CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



	Each
No. 2521	20c
Doz. lots	12c
100 "	11c
500 "	10c

Frankel Display Fixture Co.
Hudson and Vespy Sts.
NEW YORK CITY

Incorporated 1911

ALBERT G.
SEEBOTH
COMPANY

MILWAUKEE, WIS.

Manufacturers of

Cotton Batts, Cotton
and Woolen Waste

Phone South 532

Place your orders with us,
we save you money.



Catalog illustrating and pricing tools
of interest to YOU sent on request

**THE HANDIEST
THING TO GET**

—IS—
Klein's



of
Tools

A Useful
XMAS GIFT
Mathias Klein & Sons

Canal Station 62
Chicago, Ill., U. S. A.
Harrison 2047

ADVERTISING

In the

Bell Telephone
News

BRINGS
RESULTS



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

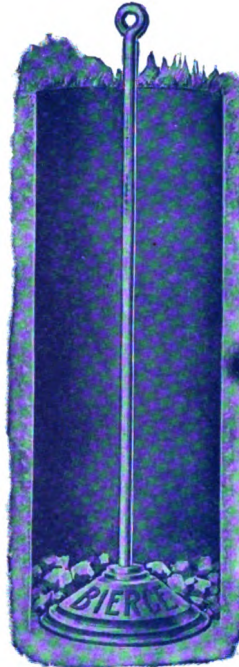
We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

TAKE NOTICE



The **Bierce Anchor** has been approved by the A. T. & T. Co., of New York.

The Bell Companies of Ohio, Indiana, Michigan, Illinois and Wisconsin have been using Bierce Anchors for months past. Ask the Bell man in your territory.

Costs less, holds more, will not creep, and can be buried quicker than any other anchor.

Sent on approval.

Write us.

Pat. Aug. 19, '13

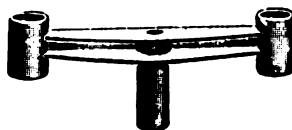
THE SPECIALTY DEVICE CO.

112 West Third Street, CINCINNATI, OHIO

DURABILITY—ECONOMY—SAFETY

WHEN BUYING MATERIAL THESE FEATURES ARE ALWAYS CONSIDERED

WE HAVE COMBINED THEM IN THE MANUFACTURE OF
**ELECTRICAL
CONSTRUCTION
SUPPLIES**



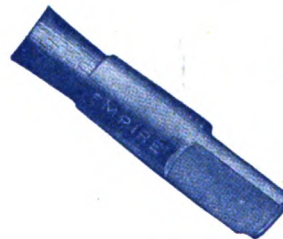
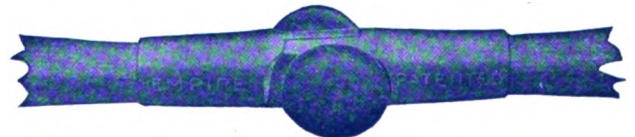
**INSULATION BRACKETS
INSULATION BREAK-ARMS
INSULATION PINS
CROSS-ARM SUPPORTS
FEEDER ARMS
CONDUIT FRAMES AND
COVERS**

MALLEABLE AND CAST IRON PIPE FITTINGS

THE SIGN **M** OF QUALITY

**ILLINOIS MALLEABLE IRON CO.
CHICAGO, ILLINOIS**

Empire Conduit Rods



Patented No. 911,854
February 9th 1909



WITH OR WITHOUT WHEELS

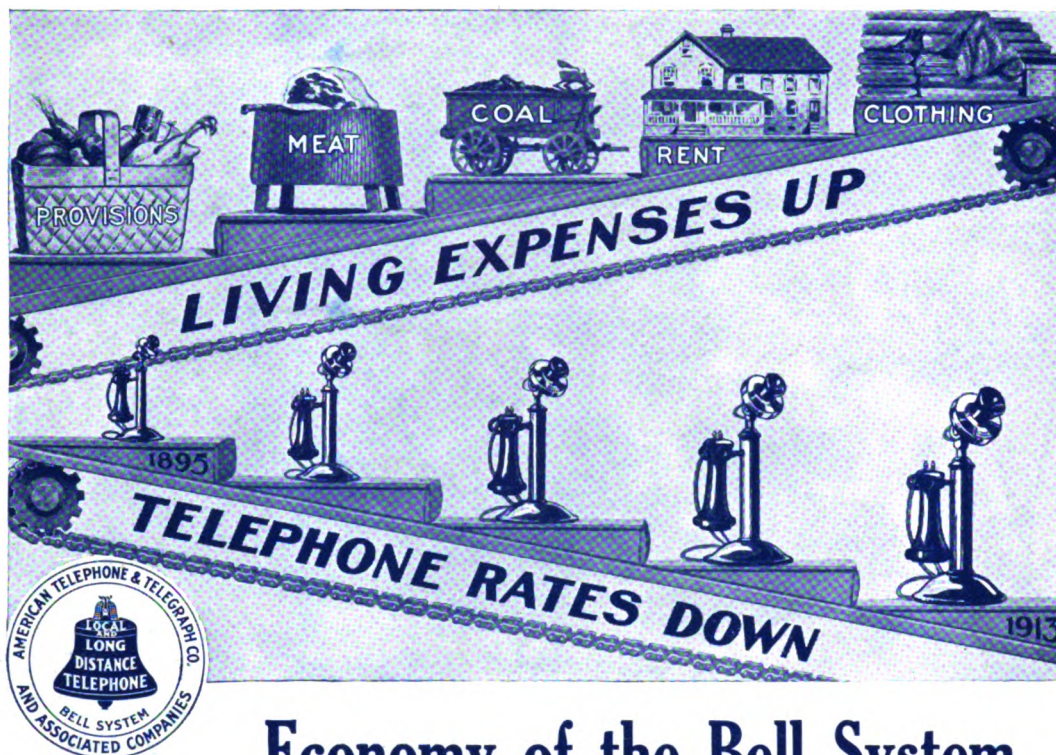
Requires less effort to push and can be run through new or old ducts.

Built for hard service, of best selected hickory, annealed castings, carefully machined.

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 WEST STREET, Cor. Cedar, NEW YORK



Economy of the Bell System

Consider this significant fact: While most of the necessities of life have gone up, the price of telephone service, which is one of the essential factors in our commercial and social life, has moved steadily downward.

Although a pound of these necessities still contains but sixteen ounces, the telephone user has been getting more and more service for less money.

On the average, the people of this country pay 49% more today for food, fuel and clothing than they did in 1895. Since then, the decrease in the average rates for telephone service has been more than one-half.

At the same time, the efficiency and value of the service to the subscriber has vastly increased. Today he can talk to an average of five times as many persons in each exchange as he could eighteen years ago.

This is the inevitable result of the comprehensive policy of the Bell System, which brings together the associated Bell companies and the communities they serve.

Through the very size and efficiency of their organization they accomplish improvements and effect economies which give the greatest service at the lowest rates.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

DEC 1 1913

BELL TELEPHONE NEWS



Vol. 3

December, 1913

No. 5

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

NOVEMBER 1, 1913

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	497,884	234,584	732,468
INDIANA	86,497	177,077	263,574
OHIO	170,214	183,361	353,575
MICHIGAN	199,199	59,921	259,120
WISCONSIN	<u>133,901</u>	<u>113,834</u>	<u>247,735</u>
	1,087,695	768,777	1,856,472

BELL • TELEPHONE • NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., DECEMBER, 1913

Number 5

Fall Blizzard Causes Tremendous Damage to Telephone Property in Cleveland

**Gale and Snow Storm Sweep Over Northern Ohio Leveling Lines and Paralyzing Service.
Bell Forces Make Repairs Quickly**

In a wind and snow storm of almost unprecedented severity, which swept over northern Ohio during three days from November 9th to 12th, the Cleveland Telephone Company suffered the worst plant damage in its history. The damage to lines and losses in business will aggregate \$300,000 to the telephone company alone. The losses to other wire-using companies are in proportion and the total cost of the storm will run into the millions.

The storm covered a wide area, but its full force fell on northern Ohio and Pennsylvania. In many places the snow was three feet deep. This snowfall, which, for the season, breaks all records, was driven by a gale which blew sixty miles an hour. Before the force of this combination of the elements, telephone, telegraph, electric light, and trolley poles, with their heavy burdens of icy wires, snapped like twigs and, in a few hours, service of every kind was in a state of almost complete demoralization. From Sunday night until Wednesday, the city of Cleveland was isolated from the world. Train and inter-urban railway service completely suspended. Telephonic and telegraphic communication with the outside was entirely cut off. Street car service was maintained on a part of the lines only with extreme difficulty, on account of the trees, poles and wires which had fallen across the tracks. Many thoroughfares were without a glimmer of light. Candles, oil lamps, lanterns and automobile headlights were at a high premium. Groceries, meat markets and hardware stores were swamped with demands for the necessities of life, which, on account of the failure of train service soon became alarmingly scarce. The blockaded streets made food deliveries almost impossible. The milk supply failed entirely except the condensed variety. Canned meats, soups and vegetables became staple articles of the menu. For a day or two actual famine threatened, but was averted by the vigorous efforts of the railroad managers in restoring train service.

In outlying districts, such as Lakewood, East Cleveland, Cleveland Heights and West Park, conditions were so bad that people were unable to leave their homes for three days.

The photographs on this and other pages of the BELL TELEPHONE NEWS show better than words can describe the conditions that confronted the plant forces of the Cleveland Telephone Company. The problems of the traffic department, with the unparalleled demand for service which naturally developed at such a time, were scarcely less difficult.

The storm was so severe that the strongest pole lines collapsed. Masses of wreckage blocked many of the principal thoroughfares and this wreckage was soon covered with drifting snow as the blizzard raged relentlessly. During storms of times past the streets were open to the construction crews, at least, but during this storm it was almost impossible to drive a four or six-horse wagon through the streets. Notwithstanding the seemingly almost hopeless difficulties of the situation and while the wind still howled its protest, the work of reconstruction began. Crews numbering as high as 800 men labored from early morning until late at night, clearing away wreckage, removing wires and partially suspended poles, to free the streets of danger as rapidly as possible.

The restoration of service, which is now practically complete, was truly remarkable considering the difficulties and the wide extent of the trouble. At one time there were 12,000 telephones out of service, 700 poles down and 1,500 miles of wire and cable down or dangling useless. The worst conditions were on St. Clair avenue between East Fifty-fifth and One Hundred and Fifth streets; on East One Hundred and Fifth between St. Clair and Superior avenues; on Superior avenue west of Twenty-fourth street; on Detroit avenue west of Twenty-fifth street; on West Twenty-fifth street south of Scranton Road; on Payne avenue west of East Fortieth street, and on St. Clair avenue between Shaw and East One Hundred and Fifty-second streets.

The Cuyahoga Telephone Company (Independent) had about 9,000 telephones out of service.

The toll lines radiating from Cleveland suffered heavily. More than 800 poles were down, and along the shore of Lake Erie, through Painesville toward Ashtabula the lines of all telephone and telegraph companies were completely wrecked.

A large percentage of the operators of all exchanges reported for duty Monday morning, November 10th, which was certainly a splendid proof of loyalty and energy considering that most of them had to make their way through streets covered with snow to a depth of three feet and which, in some places, had drifted until seven feet in depth. In many of the exchanges cots and supplies of provisions were secured and the operators remained in the buildings until Wednesday evening.

Monday afternoon the Main office looked like a wholesale



TYPICAL ACCUMULATION OF SNOW ON CLEVELAND WIRES.

rubber store; rubber boots and coats were distributed to all who had to venture out. A large number of employees who were unable to procure hotel accommodations Monday and Tuesday nights, slept on cots at the Main office.

In all cities and towns near Cleveland somewhat similar conditions prevailed. In Akron and Youngstown the forces of the Central Union Telephone Company were called upon to make quick repairs, which were accomplished in a highly creditable manner. The public and press in Cleveland and all other cities affected by the storm united in praising the energy of the Bell companies in maintaining and restoring the service. In this, as all other times of emergency where the public welfare was seriously involved, the true mettle of the Bell forces was displayed.

Loan Society Organized

On Monday, November 10th, a new loan society opened its doors to applicants for wage loans.

The First State Industrial Wage Loan Society's offices are at 25 North Dearborn street, Chicago, located on the bank floor of the Union Bank.

The business of the society is to give assistance of a financial character to employes and wage earners who are in temporary need of such assistance and who have heretofore been driven to the usurers and loan sharks with the resultant hardship and distress inherent in such relations.

The First State Industrial Wage Loan Society is to the wage earner what the bank is to the business man and applicants for loans are assured of a maximum charge of 3 per cent. per month and the legal protection of the city and state. It is hoped that experience will demonstrate that even a lower maximum rate can be fixed, but as there is no past experience upon which to base the exact hazard of the business a conservative basis must be assumed at the start.

The object of the society is not to pay large dividends to its stockholders, in

fact the act under which it is chartered limits such personal profits to 6 per cent. per annum. The ambition of the directors is to discover, by economical management, the minimum rate necessary for successfully loaning money on wage assignments.

The officers of the society are particularly anxious for the earnest cooperation

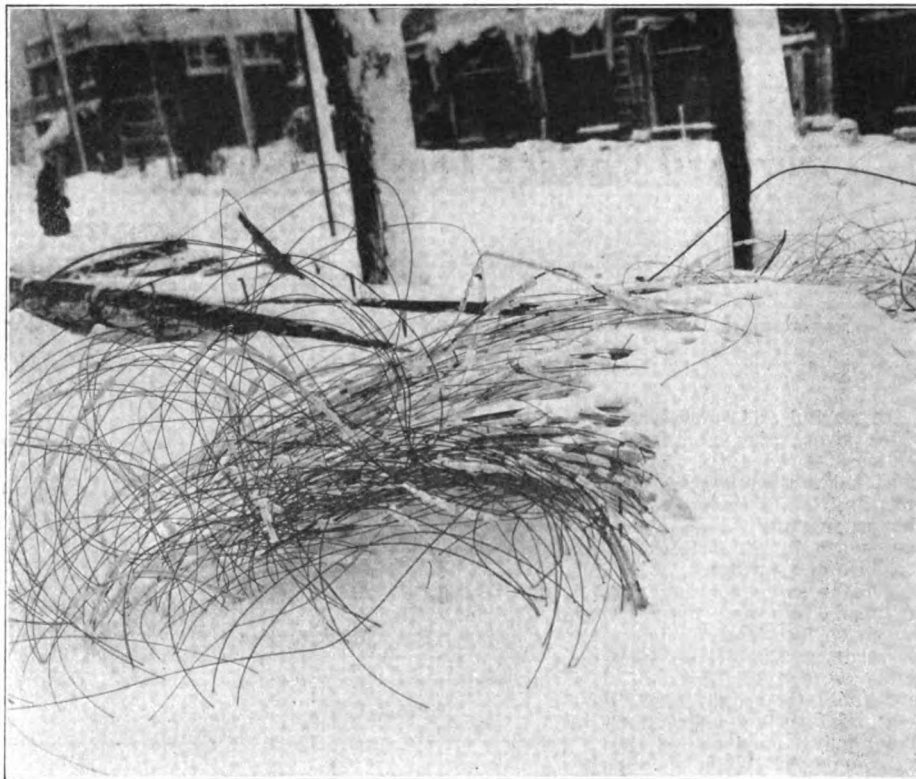
Treasurer, Gustave F. Fischer of Rubens, Fischer & Morris.

Secretary, W. Rufus Abbott of the Chicago Telephone Company.

Henry J. Beneke of Hibbard, Spencer, Bartlett Company.

Louis Mohr of John Mohr & Son.

Harry J. Powers, manager of Powers Theater.



WIRE CONDITIONS AFTER CLEVELAND STORM.

This shows a pile of wire in a yard on One Hundred and Fifth Street. This storm made such junk as this out of many thousands of dollars' worth of good property.

of the employer. Both employer and employee are asked to regard the First State Industrial Wage Loan Society as an organization with which either can transact business with the openness, dignity and confidence that would characterize their dealings with any other legitimate business undertaking. Such relations being established, and with hearty and earnest cooperation between employers and employees, a vigorous and beneficial fight can be made against the usurious loan shark, and at the same time the employer will be freed from the charge of paternalism that sometimes springs from the loaning of money to employees.

The personnel of the Board of Directors is a guarantee of successful management. The men who constitute it enjoy the confidence of the public, and they have committed themselves to attendance upon a weekly meeting of the board and to the personal supervision of the society's business.

The appointment to the board of Harry J. Powers, by the Governor of Illinois, and of Howard G. Hetzler, by the Mayor of Chicago, insures the operation of the society under state and municipal supervision.

The officers and directors are as follows:

President, Marvin B. Pool of Butler Brothers.

First vice-president, William H. Rehm of Holtz & Rehm.

Second vice-president, D. R. Kelly of Mandel Brothers.

Howard G. Hetzler, president of Chicago & Western Indiana Railroad Company.

Sums not to exceed \$250 will be loaned to those honest and trustworthy individuals upon whose support others are dependent, discrimination being made against the chronic borrower.

Good Work Appreciated

The following letter received at the Chicago offices reflects credit on the Chicago commercial and plant departments:

Chicago, Nov. 17th, 1913.

Chicago Telephone Co.,
Chicago, Ill.

Gentlemen: Desiring to increase our floor space in the Peoples Gas Bldg., we found it necessary to make a quick move from one suite of offices to another, and our business being of such a nature that it is necessary we keep in telephonic communication with our clients at all times, I got in touch with your service department, who took such excellent care of us that I have today called up and find the gentleman who did this was Mr. H. J. Birmingham, and I feel that it should come to your notice that we appreciate your splendid organization and the prompt service you rendered us.

I have had many occasions in the past to compliment the service rendered by the Chicago Telephone Co., and I can only supplement by again being in a position to appreciate the efforts you make to furnish the very best telephonic communication that it is possible to give.

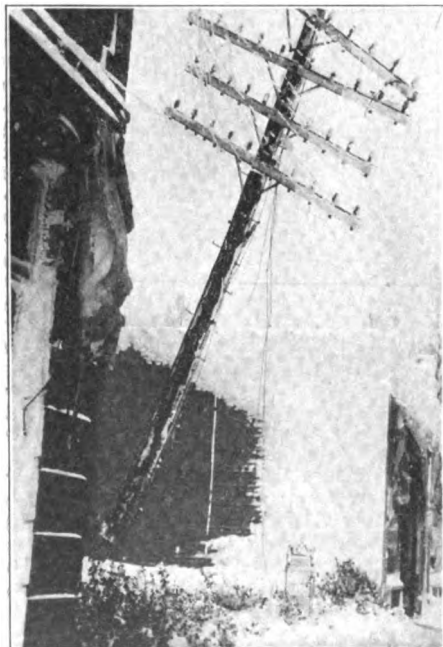
It would be a great pleasure to me if at some future time we could view the workings of your great system. (Behind the footlights.)

Again thanking you, I am,

Very truly yours,

Carpenter-Scheerer Special Agency,

Willard E. Carpenter,
President.



HUNG IN MID AIR.

After the Cleveland Storm, this Pole on East One Hundred and Fifth Street Was Found Suspended by Wires from Roofs of Buildings.

Importance of Prompt Medical Advice and Treatment in the Presence of Disease and Injury

By Dr. Alvah H. Doty, Medical Director, Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company.

Reference has been made in preceding articles to the need of prompt medical advice and treatment in the presence of disease and injury. Unfortunately the importance of this is but little appreciated, and it is necessary that special reference should be made to it for, in the light of our present knowledge of the prevention and treatment of disease the most successful results may be obtained if proper means are employed. On the other hand it would be difficult to overestimate the loss of life and the number who are permanently invalidated or crippled through neglect in this direction. The latter is largely the result of what may be termed home treatment, for it is very generally believed that the so-called simple affections may be cared for without the aid of a physician. The danger of this practice lies primarily in the fact that those who are not physicians are not competent to decide when impaired physical conditions are simple and practically devoid of danger and what symptoms may be forerunners of some serious affection. Cases of this kind are constantly occurring; for instance, persons having appendicitis are not infrequently treated at home for indigestion or for some alleged simple stomach or bowel trouble and the necessity for prompt medical attention is not recognized until it is too late to render aid to the patient. Sore throat among children is often believed by mothers to be some unimportant affection, probably the result of a cold, when the truth is that diphtheria is present in a mild form, but still infectious, and the disease in this way is many times transmitted to others and sometimes with a fatal result. This also frequently occurs in connection with scarlet fever and measles. Mild or unrecognized cases of smallpox are often mistaken for some simple skin eruption or so-called stomach rash, and treated with domestic remedies, and through exposure in this way a large section of the country may become affected. These are not occasional but common occurrences, particularly in

connection with tuberculosis, for a large percentage of these cases are treated at home usually as common colds and the disease is often far advanced before its true nature is recognized. This not only seriously interferes with the recovery of the patient but for want of proper precaution infection may be transmitted to others. The public is yet to know the frequency with which some of the most

where fever is present or where well marked or acute symptoms are referred to the head, chest or abdomen.

Home treatment is employed largely for economical reasons although as a matter of fact it is not really a saving, for oftentimes serious results follow this practice and in this way a far greater expense is involved than if prompt medical care had been obtained.



WIRE CONDITIONS AFTER CLEVELAND STORM.

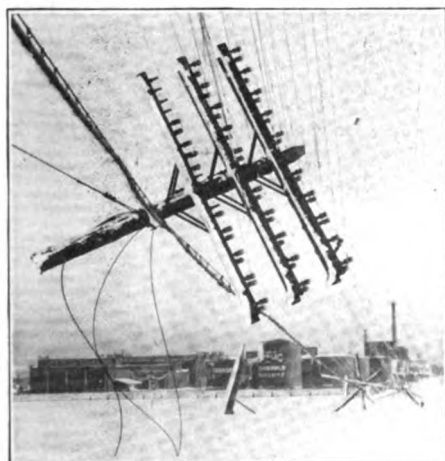
An average case of destruction, typical of conditions in many parts of the city.

dangerous diseases occur in a mild or unrecognized form.

In some sections of the country it is difficult or practically impossible to secure medical advice, besides even in built up communities accidents may occur which demand instant relief and it is therefore very much to be desired that everyone should, so far as possible, become familiar with various simple and practical means by which emergencies may be dealt with until the arrival of a physician, for through this aid many lives have been saved; however, this deals rather with emergencies and is intended to render such help as may be available only until proper medical care can be obtained.

It is not expected that the many simple aches and pains and trivial injuries which commonly affect us and which are of brief duration shall require the attention of a physician, but home treatment, which is so general in this country is not restricted to apparently simple conditions but includes the continued use of domestic remedies in cases where even laymen should be able to detect evidence of serious maladies, particularly

Curiously enough a person will promptly consult a lawyer if some simple legal question is involved or will quickly send for a veterinary surgeon if a valuable animal is sick, but he will at the same time prescribe for his children or other member of the family without the least concern as to the result. This practice is aided and abetted by charlatans and manufacturers of patent medicine who, with no scientific knowledge of the subject, prepare and offer for sale innumerable nostrums warranted to cure every ill. It is hardly necessary to state that almost every home contains some of them, particularly headache powders or tablets. Those who use the latter know nothing of their composition and danger, for they are composed chiefly of coal tar products and are extremely depressing to the heart. The wealth amassed by the manufacturers of these articles is evidence of the credulity of the public. The more serious the disease the more numerous are the remedies offered for its treatment. This is best illustrated by the many consumption cures which are offered for sale and which are not only absolutely worthless but the time which



STORM CONDITIONS IN CLEVELAND.
A Quarter of a Mile on Berea Road Was Like This.

is lost through their use often robs the patient of the chance of recovery which would be assured him if proper treatment was employed. It may be very truthfully said that a person who treats himself employs a poor physician and usually suffers in consequence.

Today there are many dispensaries and various other means of securing medical

tical value whatever and while others may under certain conditions be destructive to infectious organisms, their use in the household is as a rule uncalled for except in the presence of infectious diseases. Then the disinfectants should be selected by the attending physician and used under his direction.

A number of deaths have recently oc-

fectant, which never occurs; besides disinfectants would not necessarily destroy odors.

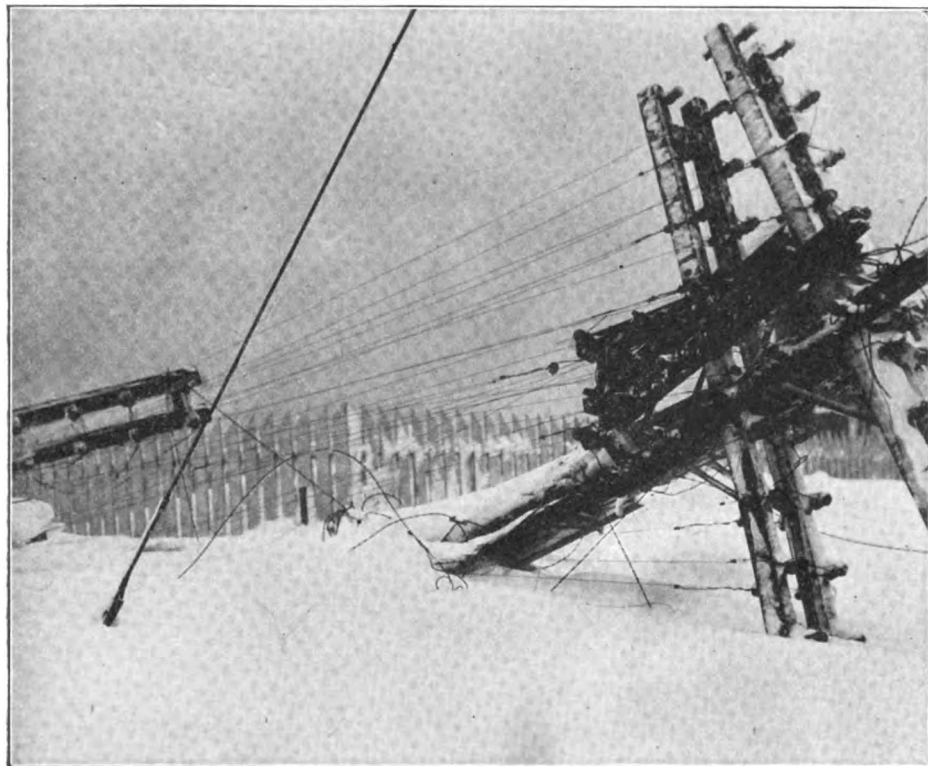
Under these conditions a deodorant need not be purchased, for the most valuable and practical one in use may be provided with but little trouble or expense by adding a pound each of unslacked lime and sulphate of copper to ten gallons of water. This mixture costs less than one cent a gallon. If a large quantity is prepared for future use it should be kept in a closely covered receptacle, otherwise the water will evaporate. Furthermore, this mixture does not easily dissolve and should be thoroughly stirred before using. There is no better or more economical way of applying it than by the common garden sprinkling pot. By this means the offensive material may be properly covered and the application repeated as often as necessary with but little cost.

This article will have been productive of some good if it has brought to the attention of the reader the danger of depending upon domestic remedies, the use of patent medicines, disinfectants, etc., and need of prompt medical care when the health is impaired and the employment of simple measures of cleanliness and plenty of fresh air in keeping the home in a good sanitary condition.

We Feel All Cut Up About It

On the last discount day in Milwaukee, which is always a busy day for the cashiers, it has been the practice to show the various subscribers the local switch-board.

Recently one of the commercial agents inquired of a German lady of rather liberal proportions whether or not she desired to see our operating rooms. Her reply was, "Oh, goodness, no, I hate to see anybody operated on."



CORNER EAST FORTIETH STREET AND PERKINS AVENUE, CLEVELAND.

advice and treatment for those who cannot afford to pay for it and there is no good reason why at least those who live in cities should not be able to secure the attention of a physician if required.

In close relation to home medication is the misconception on the part of the public regarding the definition and use of disinfectants which are generally confounded with deodorants and purchased for the purpose of preventing or neutralizing offensive odors. The function of a true disinfectant is to destroy infectious germs and not odors, for even the most valuable disinfectants cannot be depended upon for this purpose. On the other hand deodorants are agents which neutralize offensive odors chiefly by chemical means but cannot be depended upon to destroy infectious germs.

During recent years the public has gained some information regarding the germ theory of infectious disease but it has been limited and has rather encouraged the belief that infection exists everywhere and that it is with great difficulty that we escape germs in their active state concealed in clothing, baggage, money, furniture, etc., and also in public places and conveyances. As a matter of fact this condition does not exist, for the fear of infection through these sources is largely without reason. Many unnecessary and ridiculous means are taken by the public to prevent disease. This state of mind has been stimulated by an ever-increasing supply of so-called disinfectants which are advertised to free the home from all forms of disease. Many of those are of no prac-

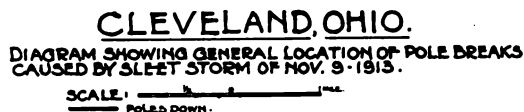
curred as the result of poisoning by bichloride of mercury or corrosive sublimate tablets, presumably taken by mistake for some headache cure or other patent medicine. Bichloride of mercury as well as other poisons, are often purchased for home disinfection, although as a rule the purchaser has no definite knowledge of the subject, but relies chiefly upon the advertisements and information which may be transmitted from one person to another. The sale of these articles should be not only prohibited by law except upon the prescription of a physician, but the public should know that these agents, except in special instances, are not necessary to insure a sanitary condition of the home, for this is obtained by fresh air and cleanliness, which includes a plentiful supply of soap and water. If this is properly carried out there should be no offensive odors in the house and the use of disinfectants should be left for the attending physician to look after when disease occurs.

In country districts or in places where there is no modern system of sewerage or proper outlet for filth, offensive odors occur in connection with privy vaults, cesspools or where garbage is deposited on the surface of the ground even when great care is used. This unpleasant condition is due to decomposed organic matter and requires the use of a deodorant and not a disinfectant, for it would be practically impossible to destroy the infectious organisms which might be present in such a mass unless every portion of it is thoroughly mixed with the disin-



A FREAK OF THE CLEVELAND STORM.

Corner of Carlyle Avenue and Fulton Road. This was one of hundreds of curious things found by the linemen after the blizzard subsided. Poles and cross-arms hanging from and against roofs were common sights.

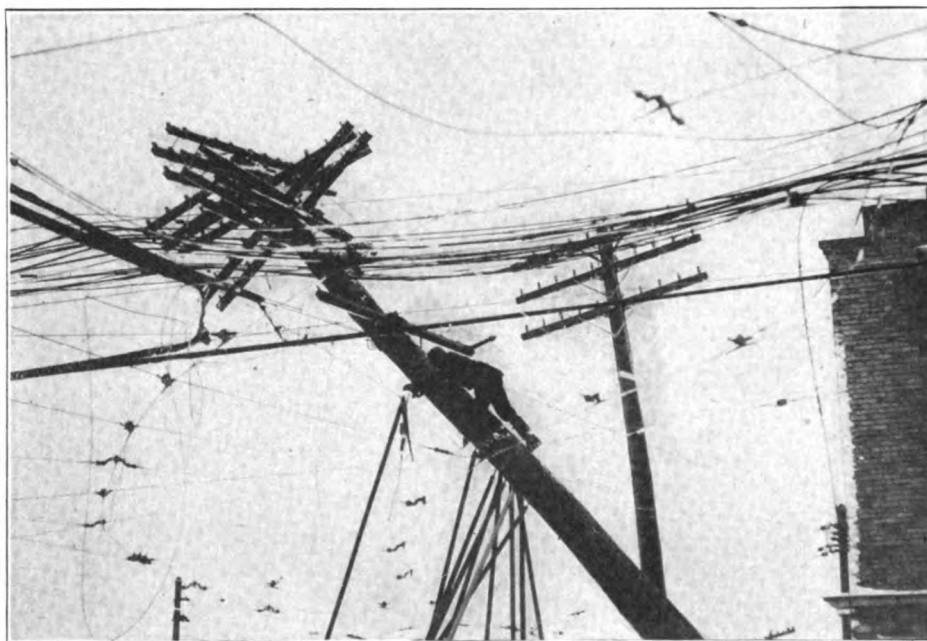


Blowing Up Gamboa Dike

The telegraph and the telephone united in making possible an event of world-wide interest and importance when on October 10th the dike at Gamboa, on the Panama Canal, was destroyed by dynamite and the waters of the two oceans were joined.

The canal officials wished to give the President of the United States the honor of exploding the dike and requested that electrical arrangements be made with that end in view. Consequently, the Western Union Telegraph Company, the Mexican Telegraph Company and the Central and South American Telegraph Company co-operated and made the necessary connections to insure the success of the project. It had been the original intention to set the blast off at 9 a. m., but at the request of the San Francisco Chamber of Commerce, the hour was changed to 2 p. m., in order that the time of the explosion should coincide with the Chamber of Commerce celebration in San Francisco. As the Pacific Coast is intensely interested in the Panama Canal, the request was granted, and at 2 p. m., New York time (11 a. m., San Francisco time, and 1 p. m., central time), President Wilson closed a key at Washington, and an instant later the Gamboa dike was blown up.

The Western Union Telegraph Company, which, in connection with the Mexican Telegraph Company, daily furnishes correct Washington time to the government officials on the Isthmus of Panama, utilized a circuit from Washington to Galveston, a distance of 1,556 miles. At Galveston, connection was made with the Mexican Telegraph Company's cable to Coatzacoalcas, 792 miles, thence over the land line across the Isthmus of Tehuantepec to Salina Cruz, 163 miles. At Salina Cruz, the circuit continued through the Central and South American Telegraph Company's cable to San Juan del Sur, Nicaragua, 690 miles, thence to the company's station at St. Elena, Ecuador, 1,034 miles. The last stretch of the cable circuit from St. Elena to Panama was 920 miles. At Panama, the cable was connected to a seventeen-mile land line to Gamboa dike,



HOW THE REPAIRMEN WORKED IN CLEVELAND.

furnished by the Panama Railroad Company.

At all the cable stations Muirhead gold-wire cable relays are used, and the closing of the key at Washington by President Wilson sent the blasting signal direct to the dynamite charge at Gamboa dike without the intervention of human hands. When the relay at Gamboa dike was thus closed, the charge in the dike immediately exploded, thus practically completing the greatest engineering feat in the history of the world.

On the bridge at Gamboa a man was stationed, holding in his hand a telephone connecting with the Central and South American Telegraph Company's office at Panama. The moment the explosion occurred, he telephoned the fact to the operator at Panama, who was ready for the signal with a telephone at his ear and his hand on the key connected to

the circuit back to New York. At the instant the signal was received from Gamboa he flashed it to New York, via Colon, and Fisherman's Point, Cuba.

President Wilson closed the key at Washington at 2:01 p. m. The return signal announcing the success of the event was received at New York at 2:02½. The total length of the circuit from Washington to Gamboa dike was 5,172 miles, and the length of the return circuit via Colon to New York was 2,310 miles.

The direct cable between San Juan del Sur and Panama was temporarily interrupted, or it would have been used as a link in the circuit, instead of going around by the way of St. Elena, Ecuador.

At the office of the Mexican Telegraph Company, at 64 Broad street, New York, were gathered to witness the interesting ceremonies representatives of practically all of the New York newspapers and many prominent citizens. In addition to three telephone trunk lines, additional public circuits were connected with various organizations throughout Greater New York, to which the news of the event was instantly telephoned.

The event was appropriately celebrated at San Francisco. A direct wire from the White House at Washington was run to a set of instruments at the base of the Dewey monument, Union Square, San Francisco, where a large crowd of people had assembled to witness the attending ceremonies. The San Francisco circuit was closed by President Wilson at the same moment that he closed the circuit to Gamboa dike. When the signal was received, a young lady on the speaker's stand sang the "Star Spangled Banner," and Miss Annette Rolph, daughter of Mayor Rolph, of San Francisco, unfurled the Stars and Stripes, indicating to the assembled people that the Gamboa dike had been blown up.

Twenty Cents from the Skies

The following letter, enclosing twenty cents in stamps, was recently received at Milwaukee.

Wisconsin Telephone Company,
Milwaukee, Wis.
Kindly credit the enclosed stamps to your
conscience fund, 20c, and oblige. M. E.
No more slugs.



WIRE CONDITIONS IN CLEVELAND AFTER STORM.
A Difficult Situation to Clear.

Christmas Greeting

To All Employees :

At this holiday season I suggest that we take a glance in retrospect and prospection.

The recent convention of the Telephone Pioneers brought home to us the accomplishments of the men who, patient, persevering and courageous, undaunted in the face of repeated reverses, held faithfully to their associates and to the work to which they had set their hands.

Bell and Vail wrought for themselves undying fame through perseverance and tenacity of purpose. Doubting men in plenty, arrogating to themselves the veil of prophecy, spoke of their great enterprise as the dream of visionaries and the invention as "the telephone toy."

But steadfastness won. The two builders, with supreme faith in their undertaking, demanded no higher function than to serve the common good. Their ambition was to bestow rather than to claim.

These are noble examples for us, whose duty and privilege it is to carry forward the great work so excellently planned.

During the year 1913 the Central Group of the Bell System has undergone a baptism of tornado, flood and fire. Through your intelligent, patient and untiring efforts the effects of these calamities have been overcome.

The victories were not won by a few. Some played the more prominent parts, to them fell the spectacular roles. But none will be more ready, I take it, than those so singled out, to grant that their achievements were only possible by reason of that concentrated pull, that unity of action which characterizes the Bell System and makes its progress methodical, intelligent, irresistible. In this orderly march each of you has played and is playing his or her part.

In some divisions of the Group the demand for service has been so great as to almost thwart our efforts to meet it. Here, too, there has been the same persevering, painstaking endeavor.

The progress we have made, the successes we have attained emphasize the fact that our organization is filled with manly men and womanly women, inspired by noble purposes.

Upon these, owing to the natural growth in our business, heavier responsibilities must, of necessity, rest. The larger requirements will be measured up to. The best augury for the future is the record of the past.

Personally and on behalf of the officers and directors I thank you for your fidelity and zeal. I congratulate you upon what you have accomplished and I bespeak your co-operation in meeting and solving the problems of the future.

I extend to you all my cordial good wishes for A Merry Christmas and A Happy New Year.

W. E. Sawyer
President.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
 A. BURT, *Vice President*
 W. I. MIZNER, *Secretary*
 C. E. MOSLEY, *Treasurer*
 L. G. RICHARDSON, *General Counsel*
 B. S. GARVEY, *General Auditor*
 J. G. WRAY, *Chief Engineer*
 CLIFFORD ARICK, *Manager Publicity Department*

H. F. HILL, *General Manager*,
 Chicago, Ill.
 E. A. REED, *General Manager*,
 Columbus, Ohio
 H. O. SEYMOUR, *General Manager*,
 Milwaukee, Wis.
 L. N. WHITNEY, *General Manager*,
 Indianapolis, Ind.
 A. VON SCHLEGEL, *General Manager*,
 Detroit, Mich.
 H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

DECEMBER, 1913.

Our Telephone Manners

A New York paper asks, "Why are our telephone manners bad?" This assumes that our telephone manners are bad, the "our" probably meaning the general public.

This is begging the question. Our telephone manners are not wholly bad; it is only a few of our practices that are bad. It is an encouraging sign of the times that the impropriety of some practices among telephone users is recognized and that attempts are being made to reform these practices independently of the efforts put forth by the telephone companies to simplify the use of the service.

The use of the word "hello" is said to have originated with Mr. THOMAS A. EDISON, who, in shouting into one of the not very sensitive telephones of the early days, found that the sound of this word, on account of the sonorous second syllable, carried well over the wire. The necessity for such a word passed away many years ago but the habit started has been hard to break.

But the use of "Hello" is one of the minor evils which the exponents of telephone courtesy are striving to correct. More serious is the practice on the part of the caller of hurling at the answering party the rude and abrupt question, "Who is this?" This is characterized as the *faux pas* terrible in the list of telephone improprieties.

Let the good work go on, we say. Probably the bad manners are more apparent than real. This is indicated by the rapid progress of reform, which is seldom so when actual evils are under assault.

As an institution the telephone is comparatively new. Perhaps when it is as old as the afternoon tea a complete code of etiquette will govern its use. The hope of the telephone man is that this code will be simple.

Collections by Mail

In an unusually interesting article on "Collections by Mail vs. Collections by Collectors," Mr. M. L. SAUNDERS, manager at Bay City, Mich., brings out clearly one important advantage of the collections by mail system. The article should be read carefully by every commercial employee.

Mr. SAUNDERS, basing his statements on experience as a manager in an exchange of 3,000 telephones, says that the plan of bringing subscribers to the office where, naturally, they have the subject of their service particularly on their minds, results in discovering many causes for complaint which might otherwise not be learned by the telephone management and no opportunity be afforded to correct the troubles. In short, Mr. SAUNDERS believes that the personal contact between management and subscriber at the office is more effective in promoting good service and satisfied patrons than the relation established between a collector and the subscriber at his home or place of business.

There may be some who will take the opposite view, but nevertheless the point is interesting. In any event it is pretty well established that the plan of mailing bills and requiring payment by mail or at the telephone office has many advantages,

both to the subscriber and the company, over which no difference of opinion is possible.

A Voice from Oregon

The state of Oregon has become somewhat noted for proneness to experiment with the fads of government. The attitude of its public utility commission on the question of so-called competition is therefore of more than usual interest.

In effect the commission has declared for regulated monopoly in public utilities. It has had a large number of applications for authority to compete in districts already well served by existing utilities and in reply to these applications has said:

One company properly regulated and administered, can generally give better and cheaper service than two. It is a waste of capital and is a disadvantage to a city to have two sets of telephone and electric light wires and poles cumbering the streets when one can be made to serve the same purpose. Most utilities are natural monopolies, and the highest efficiency and lowest rates are only possible when each one has the entire business of a given city or territory. Now that we have the right and duty to regulate all public service corporations, the ill effects of monopoly may be escaped and at the same time the beneficial results of economy and efficiency realized.

A High Compliment

One of the "Visiting Day" callers at the Central Union exchange at Terre Haute, Ind., was the chief of the fire department. After a careful examination of the exchange building and methods of fire protection the chief remarked that "if every building in Terre Haute were like this one we would be out of a job."

Here was a substantial endorsement of the character of building construction used in Bell exchanges and a compliment to the efficacy of the means of fire protection in case of emergency.

Terre Haute is not the only city which has an amply protected, fireproof telephone building. Hundreds of other cities have similar first class buildings and many new ones are put up every year. The Bell companies aim to leave nothing undone which will contribute to the safety and comfort of their employees and insure an uninterrupted service to the public.

A Far Reaching Influence

One of the most marked developments in recent educational practice is the enlargement in scope of vocational training furnished by the public schools. The Chicago Telephone Company cooperated with the public schools of Chicago along this line for two years, by means of a half-time arrangement with one of the technical high schools, under which the students alternated weekly between the high school and the company's employ. It is therefore with considerable interest that we note the influence of the company extending to Porto Rico, as indicated by a recent announcement in the papers of the appointment of thirty graduates of Lane Technical High School as teachers in manual training under the supervision of the United States Bureau of Insular Affairs. In the list is found the names of eight of the boys trained under this half-time arrangement.

Wedding Chimes

It would be unusual if the telephone did not enter in some remarkable way into such an interesting event as a White House wedding. And so it did in the recent wedding of the President's daughter.

The chimes of the Old North Church, in Boston, were rung on November 25th in honor of the wedding. A direct telephone wire was arranged so that the notes were clearly audible in the White House in Washington. Dr. ALBERT H. NICHOLS, president of the Boston Guild of Chime Ringers, supervised the ringing.

The White House telephone operators probably could tell about other uses made of the telephone during the important days preceding this momentous event, but like all good operators, they are, of course, silent.

"Good Business"

If a superintendent or manager requests the commercial agents to "Get the business," he means "get the good business." It is too bad the word "good" was left out of this smashing phrase when some keen business man invented it.

Every telephone installed represents the expenditure of a portion of the company's capital. It is therefore important that our service be sold to those who are able to pay for it and pay for it continuously. This is not only "good business" but is justice to the great body of paying subscribers.

District and Division Collection Rating

SEPTEMBER 1, 1913.

	Total to be collected during Aug., 1913.	Aug., 1913, collections.	Unpaid Sept. 1.	Pct. collected.	Pct. uncollectible to current chgs.	Stations.
1. Wisconsin Co., Appleton District.....	\$ 62,793	\$ 60,490	\$ 2,303	96.3	.1	26,761
2. C. U. Co. (Indiana), Southern District.....	39,329	36,073	3,256	91.7	.7	18,919
3. C. U. Co., Columbus District.....	49,864	44,684	5,180	89.6	.1	21,501
4. Wisconsin Co., Madison District.....	38,185	33,738	4,447	88.3	.03	15,941
5. C. U. Co., Centralia District.....	11,277	9,918	1,359	87.9	.7	5,106
6. Wisconsin Co., Janesville District.....	10,620	9,236	1,384	86.9	.004	4,400
7. Chicago Co., Chicago Heights District.....	7,561	6,529	1,032	86.4	.69	2,585
8. Chicago Co., Blue Island District.....	10,408	8,884	1,524	85.3	.8	3,375
9. Wisconsin Co., Milwaukee District.....	170,686	145,544	25,142	85.2	.3	61,192
10. Wisconsin Co., Eau Claire District.....	36,595	30,907	5,688	84.4	.6	13,454
11. C. U. Co. (Indiana), Northern District.....	60,791	51,249	9,542	84.3	2.4	26,197
12. C. U. Co., Galesburg District.....	7,429	6,157	1,272	82.9	1.1	3,422
13. C. U. Co., Chillicothe District.....	38,023	31,402	6,621	82.6	.2	18,894
14. C. U. Co., Jacksonville District.....	7,432	6,170	1,262	82.5	.1	4,305
15. C. U. Co., Champaign District.....	6,413	5,273	1,140	82.2	.8	2,296
16. Michigan Co., Detroit District.....	308,707	253,037	55,670	82.2	1.7	80,753
17. C. U. Co., Toledo District.....	55,135	45,210	9,925	82.2	.6	23,759
18. Chicago Co., Chicago District.....	1,345,133	1,102,701	242,432	81.9	.35	336,679
19. C. U. Co., La Salle District.....	6,822	5,687	1,235	81.9	.4	2,566
20. C. U. Co., Rock Island District.....	28,136	22,701	5,435	80.7	.4	10,277
21. C. U. Co., Alton District.....	7,023	5,584	1,439	79.5	1.1	3,173
22. C. U. Co., Paris District.....	2,398	1,899	499	79.2	.9	1,652
23. Chicago Co., Aurora District.....	18,404	14,495	3,909	78.8	.54	6,658
24. Chicago Co., La Grange District.....	16,054	12,637	3,417	78.7	.94	5,057
25. C. U. Co., Akron District.....	64,598	50,068	14,530	77.5	.3	23,495
26. Chicago Co., Waukegan District.....	29,731	22,892	6,839	76.9	.79	7,855
27. C. U. Co., Kankakee District.....	13,881	10,664	3,217	76.8	.3	5,970
28. Chicago Co., Elgin District.....	16,046	12,297	3,749	76.6	.29	6,074
29. C. U. Co., Dayton District.....	64,597	49,189	15,408	76.1	.1	23,201
30. C. U. Co., Quincy District.....	14,790	11,260	3,530	76.1	...	5,865
31. Chicago Co., Oak Park District.....	34,673	26,334	8,339	75.9	.57	9,763
32. C. U. Co. (Indiana), Central District.....	92,111	69,833	22,278	75.8	1.4	30,837
33. Chicago Co., Evanston District.....	41,763	31,354	10,409	75.1	.55	9,801
34. Chicago Co., Wheaton District.....	11,501	8,630	2,871	75	.17	3,831
35. Chicago Co., Hammond District.....	20,566	15,209	5,357	73.9	1.55	5,823
36. Chicago Co., Woodstock District.....	11,429	8,313	3,116	72.7	.33	3,525
37. C. U. Co., Decatur District.....	17,961	12,825	5,136	71.4	.5	5,479
38. C. U. Co., Peoria District.....	49,537	35,301	14,236	71.3	.3	15,763
39. Chicago Co., Joliet District.....	29,114	20,394	8,720	70.5	1.07	9,857
40. Chicago Co., Gary District.....	10,593	7,557	3,036	69.9	2.79	2,237
41. C. U. Co., Springfield District.....	35,979	24,685	11,294	68.6	.2	9,982
42. Cleveland Co., Cleveland District.....	205,250	139,126	66,124	67.8	.36	57,062
43. Michigan Co., Saginaw District.....	27,636	18,485	9,151	66.9	2.7	21,162
44. C. U. Co., Rockford District.....	22,989	14,269	8,720	62	.01	7,758
45. Michigan Co., Eastern District.....	101,855	57,316	44,539	56.2	3.2	30,939
46. Michigan Co., Grand Rapids District.....	139,766	78,346	61,420	56	.7	42,754
47. Michigan Co., Marquette District.....	57,804	31,676	26,128	54.7	.7	15,221
Total	\$3,504,378	\$2,733,027	\$771,351	78	---	1,053,174

*Quarterly rental billing.

DISTRICT SUMMARY.

Wisconsin Co.	\$ 318,879	\$ 279,915	\$ 38,964	87.7	.3	121,748
Chicago Co. (city)	1,345,133	1,102,701	242,432	81.9	.35	336,679
C. U. Co. (Indiana)	192,231	157,155	35,076	81.8	1.6	75,953
C. U. Co. (Ohio)	272,217	220,653	51,564	81.2	.3	110,850
Chicago Co. (Sub.)	257,773	195,325	62,448	79.6	.79	76,441
C. U. Co. (Illinois)	232,127	172,293	59,834	74.2	.3	83,612
Michigan Co.	680,768	465,859	214,909	68.4	1.7	190,829
Cleveland Co.	205,250	139,126	66,124	67.8	.36	57,062
Total	\$3,504,378	\$2,733,027	\$771,351	78	---	1,053,174

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent of the total charges for collection during August, 1913, are given below:

City and State.	Per cent collected.	Stations.
Edwardsville, Ill.	100	1,205
Columbus, Wis.	100	841
Marshall, Ohio.	100	172
Rainbow, Ohio.	100	141
Princeton, Wis.	100	129
Red Granite, Wis.	100	103
Burnett Jct., Wis.	100	77
Linden, Ind.	100	70
Fairland, Ind.	100	60
Milan, Ill.	100	21
Sturgis, Mich.	100	14
Mt. Orab, Ohio.	100	13
Elburn, Ill.	100	6
Plainfield, Ind.	100	5
Algoma, Wis.	99.6	252
Galva, Ill.	99.2	7
Baraboo, Wis.	99.1	772
Spencer, Ind.	99.1	252
Winneconne, Wis.	99.1	140
Horicon, Wis.	99	350
Richmond, Ind.	99	63
Okawville, Ill.	98.8	18
Vincennes, Ind.	98.7	2,543
Hartford, Wis.	98.5	647
Jefferson, Wis.	98.5	393
Elwood, Ill.	98.5	41
Auburn, Ind.	98.4	1,067
Crawfordsville, Ind.	98.3	2,891
Beaver Dam, Wis.	98.3	1,445
Oconto, Wis.	98.2	490
Ft. Atkinson, Wis.	98	778
Hortonville, Wis.	98	349
Manilla, Ind.	98	62

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent of the total charges for collection during September, 1913, are given below:

City and State.	Per cent collected.	Stations.
Columbus, Wis.	100	844
Jefferson, Wis.	100	396
Horicon, Wis.	100	352
Winchester, Ohio.	100	350
Flushing, Mich.	100	277
Algoma, Wis.	100	254
Marshall, Ohio.	100	171
Rainbow, Ohio.	100	140
Princeton, Wis.	100	132
Gladwin, Mich.	100	120
Stephenson, Mich.	100	81
Burnett Jct., Wis.	100	77
Linden, Ind.	100	71
Weidman, Mich.	100	50
Little Chute, Wis.	100	48
Powers, Mich.	100	45
Peru, Ohio.	100	36
Niagara, Mich.	100	33
Okawville, Ill.	100	17
Metamora, Mich.	100	16
Corunna, Mich.	100	14
Mt. Orab, Ohio.	100	13
So. Boardman, Mich.	100	9
Plainfield, Ind.	100	5
Elk Rapids, Mich.	99.8	187
Brooklyn, Ind.	99.7	81
Mancelona, Mich.	99.2	127
St. Charles, Mich.	99.2	107
Watertown, Wis.	99	916
Baraboo, Wis.	99	775
Stanley, Wis.	99	346
Hurley, Wis.	99	241
Winneconne, Wis.	99	139
Washington, Ind.	98.9	1,528
Spencer, Ind.	98.9	254
Hart, Mich.	98.7	57
Vincennes, Ind.	98.7	2,535
Galva, Ill.	98.6	7
Buchanan, Mich.	98.5	630
Wabash, Ind.	98.5	30
Sturgis, Mich.	98.5	14
Oshkosh, Wis.	98	4,338
Manitowoc, Wis.	98	1,482
Stoughton, Wis.	98	1,051
Stevens Point, Wis.	98	928
Ft. Atkinson, Wis.	98	780
Hartford, Wis.	98	656
Waupaca, Wis.	98	487
Berlin, Wis.	98	411
Oconto Falls, Wis.	98	111
Red Granite, Wis.	98	102
Champion, Mich.	98	25
Crawfordsville, Ind.	97.8	2,907
Boyne City, Mich.	97.8	406
Auburn, Ind.	97.5	1,070
Richmond, Ind.	97.5	63
Hillsboro, Ohio.	97.4	637
Edwardsville, Ill.	97.3	1,223
Kewanee, Ill.	97.2	409
Fairland, Ind.	97.2	60
Appleton, Wis.	97	2,891
Eau Claire, Wis.	97	2,844
Sturgeon Bay, Wis.	97	763
Burlington, Wis.	97	738
New London, Wis.	97	512
Mayville, Wis.	97	492
Hortonville, Wis.	97	352
Bayfield, Wis.	97	254
Peshigo, Wis.	97	125
Grand Haven, Mich.	96.9	688
Manilla, Ind.	96.9	63
Lewistown, Ill.	96.8	769
Buchtel, Ohio.	96.8	145
Harrisonville, Ohio.	96.7	58
Allegan, Mich.	96.5	211
Amasa, Mich.	96.5	12
Newark, Ill.	96.3	204
Three Oaks, Mich.	96.3	182
Bourneville, O.	96.2	54
Green Bay, Wis.	96	4,912
Waukesha, Wis.	96	1,927
Marquette, Wis.	96	1,429
De Pere, Wis.	96	1,050
Potoskey, Mich.	96	857
Hudson, Wis.	96	570
Omro, Wis.	96	546
Oconto, Wis.	96	489
Kaukauna, Wis.	96	443
Kewanee, Wis.	96	260
Wrightstown, Wis.	96	102
Peotone, Ill.	95.7	57
Gaston, Ind.	95.7	47
Homewood, Ill.	95.6	235
Lake Zurich, Ind.	95.5	125
Boggs, Ind.	95.5	87
Dowagiac, Mich.	95.4	727
Fife Lake, Mich.	95.3	66
Mt. Vernon, Ill.	95.2	1,259
East Jordan, Mich.	95.2	317
Fond du Lac, Wis.	95	3,543
Neenah-Menasha, Wis.	95	1,492
Beaver Dam, Wis.	95	1,465
Waupun, Wis.	95	630
Juneau, Wis.	95	175
North Freedom, Wis.	95	150
Enon, O.	95	70

District and Division Collection Rating

OCTOBER 1, 1913.

	Total charges.	Total credits.	Total unpaid Oct. 1.	Pct. credits to total chgs.	Pct. cash col. final chgs.	Stations.
1. Wisconsin Co., Appleton District.....	\$ 63,112	\$ 60,892	\$ 2,220	96.5	31.3	26,936
2. C. U. Co., Columbus District.....	52,612	48,465	4,147	92.1	11.7	21,898
3. C. U. Co., (Indiana), Southern District	40,245	36,981	3,264	91.9	26.1	19,012
4. Wisconsin Co., Milwaukee District....	151,266	138,683	12,583	91.7	50.8	61,879
5. Wisconsin Co., Madison District.....	39,504	35,481	4,023	89.8	26.7	16,080
6. C. U. Co., Centralia District.....	12,299	11,004	1,295	89.5	23.9	5,144
7. C. U. Co., Champaign District.....	6,539	5,842	697	89.4	35.6	2,362
8. C. U. Co., (Indiana), Northern District	61,276	54,295	6,981	88.6	22.5	26,163
9. Chicago Co., Chicago Heights District	8,596	7,590	1,006	88.2	28.1	2,596
10. Wisconsin Co., Eau Claire District....	36,080	31,797	4,283	88.1	15.7	13,549
11. Wisconsin Co., Janesville District.....	11,125	9,797	1,328	88.1	31.5	4,467
12. C. U. Co., La Salle District.....	6,479	5,661	818	87.3	23.4	2,580
13. Michigan Co., Detroit District.....	358,936	306,130	51,906	85.5	28.7	80,773
14. Michigan Co., Marquette District.....	37,834	32,275	5,559	85.3	29.5	15,249
15. C. U. Co., Jacksonville District.....	7,250	6,143	1,107	84.7	26.7	4,312
16. Chicago Co., Gary District.....	13,226	11,198	2,028	84.7	18.3	2,256
17. C. U. Co., Chillicothe District.....	35,587	30,119	5,468	84.6	29.2	18,813
18. Chicago Co., Aurora District.....	21,297	17,879	3,418	83.9	36.2	6,721
19. Chicago Co., Chicago District.....	1,515,744	1,271,468	244,276	83.8	45.0	340,928
20. C. U. Co., Akron District.....	68,079	56,572	11,507	83.1	23.1	23,890
21. C. U. Co., Toledo District.....	58,481	48,375	10,106	82.7	4.8	23,781
22. Chicago Co., Woodstock District.....	11,617	9,548	2,069	82.2	40.9	3,529
23. Chicago Co., Wheaton District.....	13,624	11,190	2,434	82.1	37.6	3,836
24. Chicago Co., Elgin District.....	18,882	15,491	3,391	82.0	36.7	6,091
25. C. U. Co., Dayton District.....	66,514	54,148	12,366	81.4	15.9	23,267
26. Chicago Co., Hammond District.....	24,964	20,334	4,630	81.4	20.4	5,845
27. C. U. Co., Paris District.....	2,996	2,434	562	81.2	....	1,669
28. Chicago Co., Waukegan District.....	35,281	28,509	6,772	80.8	39.7	7,873
29. Michigan Co., Grand Rapids District...	92,724	74,707	18,017	80.5	8.3	42,620
30. Chicago Co., Oak Park District.....	40,323	32,233	8,090	80.0	34.3	9,886
31. C. U. Co., Galesburg District.....	7,503	5,998	1,505	79.9	5.8	3,331
32. Chicago Co., La Grange District.....	17,972	14,302	3,670	79.6	36.1	5,093
33. Chicago Co., Blue Island District.....	11,388	9,059	2,329	79.5	32.4	3,425
34. C. U. Co., Rock Island District.....	28,100	22,310	5,790	79.4	....	10,416
35. Chicago Co., Evanston District.....	47,981	37,694	10,287	78.5	34.0	9,931
36. C. U. Co., Kankakee District.....	14,690	11,440	3,150	78.4	....	6,080
37. C. U. Co., Alton District.....	6,648	4,968	1,580	75.9	1.5	3,218
38. C. U. Co., (Indiana), Central District...	88,775	67,151	21,624	75.6	17.7	31,253
39. Chicago Co., Joliet District.....	35,182	26,609	8,573	75.6	20.3	9,826
40. Michigan Co., Saginaw District.....	41,253	31,030	10,223	75.2	....	21,147
41. C. U. Co., Decatur District.....	17,419	13,010	4,409	74.7	3.5	5,541
42. Cleveland Co., Cleveland District.....	142,201	104,140	38,061	73.2	32.7	57,551
43. C. U. Co., Springfield District.....	35,200	25,237	9,963	71.7	9.2	10,040
44. C. U. Co., Peoria District.....	54,433	38,060	16,373	69.9	4.1	15,908
45. C. U. Co., Rockford District.....	23,274	14,284	8,990	61.3	6.5	7,863
46. C. U. Co., Quincy District.....	14,640	8,575	6,065	58.6	....	5,573
47. Michigan Co., Eastern District.....	68,288	35,021	33,267	51.2	21.1	30,895
	\$3,566,339	\$2,944,129	\$622,210	82.6	....	1,061,111

*Quarterly rental billing.

DISTRICT SUMMARY.

Wisconsin Co.	301,087	276,650	24,437	91.8	48.4	122,911
C. U. Co. (Ohio)	281,273	237,679	43,594	84.5	16.4	111,649
Chicago Co. (City)	1,515,744	1,271,468	244,276	83.8	45.0	340,928
C. U. Co. (Ind.)	190,296	168,427	21,869	88.3	19.3	76,433
Chicago Co. (Suburban)	300,333	241,636	58,697	80.4	30.9	76,911
Michigan Co.	598,135	479,163	118,972	80.1	26.7	190,681
C. U. Co. (Ill.)	237,270	174,966	62,304	73.7	8.3	84,042
Cleveland Co.	142,201	104,140	38,061	73.2	32.7	57,551
	\$3,566,339	\$2,944,129	\$622,210	82.6	....	1,061,111

Senator Sherman at Lunch Club

The Honorable Lawrence Y. Sherman, United States Senator from Illinois, was the speaker at the Monday luncheon at Chicago headquarters November 3rd. The announcement that Senator Sherman would talk drew the largest crowd which ever attended a Monday luncheon, but this had been anticipated and provided for by the committee.

Senator Sherman was introduced by President Sunny, and for a half hour held the close attention of his hearers. His speech was directed principally to the currency bill pending in Congress. Senator Sherman explained in considerable detail the provisions of the proposed law and the relief from existing bad conditions which it is expected to furnish. He described the operation of the proposed reserve banks and likened them to a fire department which can rush assistance to any point in a wide territory and quench a blaze while it is small. In like manner, the reserve banks can rush help to any bank and prevent the spread of panic.

Senator Sherman contrasted the tremendous bulk of general business of the country annually with the comparatively insignificant amount of currency in circulation. The annual business of the country, \$168,

000,000,000, is transacted with about \$3,000,000,000 in currency—a ratio of 58 to 1. The function of the proposed reserve banks, the Senator explained, is to convert any necessary part of the tokens of credit held by any national bank into cash.

Senator Sherman related an incident which occurred while he was in the state legislature. "I was busy in my office in Springfield one day," he said, "when a visitor's card was brought in. Without looking at the card I sent word that I would be busy for a few minutes. When the man came in he asked me to introduce a bill providing for the extension of educational work for the deaf and dumb. He talked so convincingly that I agreed to introduce the bill, although I did not yet know who my visitor was. However, while we were talking I had picked up his card. As I stole a glance at it I read the name Alexander Graham Bell."

"And are you the man who invented the telephone?" I asked as I rose to shake hands with him again.

"Well there is a law suit on over that matter," he replied with a twinkle in his eye, "so I am not quite sure."

"I never regretted that I introduced the bill," added the senator. "It became a law and resulted in an improvement in the facilities for teaching the deaf."

"The Spinners of Speech"

This is the title of a splendid set of moving picture reels which have been shown at a number of Chicago moving picture houses and will be put on the screens at all houses where the Pathe Brothers, or "Pathe Freres" weekly review is shown.

As the name indicates, these reels show in moving pictures many of the details of telephone practice. They were produced by Pathe Brothers with the cooperation of the American Telephone and Telegraph Company, and the Bell exchanges and Bell construction work are in all cases shown.

The opening scene shows telephone construction in the western mountains. Pole holes are blasted with dynamite and poles set. The gang follows, the booted and spurred linemen climbing the poles and attaching the wires for all the world like the real thing (as probably they were). An inquisitive bear climbs one of the poles and surveys the landscape. The line is followed as it proceeds along the highway to a populous town, where the wires, gathered into cable, enter the central office building.

The scene then shifts to a large city exchange, where the local operators, trunking operators, information operators, and hospital operators are shown busy at the boards. The wire chief's forces are shown busy at their frames and test desks, and the pictures descend with the repairmen into the manholes under the streets. A cable barge is followed across San Francisco bay, the barge paying out cable until the opposite shore is reached and the gang hauls the end out upon dry land.

One very interesting feature of the reels shows the successive traffic steps involved in putting up a connection between Denver and New York, through Omaha and Chicago.

By courtesy of the General Film Company the reels were shown at the Monday Luncheon in the Telephone Building, Chicago, November 17th.

Bell Telephone Bowling League

STANDING OF THE TEAMS NOVEMBER 20, 1913.

Team—	Won.	Lost.	Pct.	Aver.
Commercial	23	7	.766	870
Installation	22	8	.733	862
Engineers	22	8	.733	860
Maintenance	21	9	.700	862
Traffic	19	11	.633	810
Construction	13	17	.433	807
Revenue	11	19	.366	786
A. T. & T.	11	19	.366	732
Collectors	5	25	.166	707
Suburban Commercial.	3	27	.100	607

Prospects are bright for an interesting season in the Bell Telephone Bowling League of Chicago. The Commercials, victors of the season of 1912-1913, are again at the top by a slight margin after trailing below for a few weeks. It is too early, however, to make predictions.

The list of teams, as shown in the table of averages above is somewhat changed from last year. The present arrangement is believed to forecast a closer fight for place.

The following are officers elected for the season: President, M. D. Atwater; vice-president, J. H. Riddel; secretary, C. W. Bacon; treasurer, M. P. Flynn.

Committee Chairmen: Alleys, O. L. Halberg; banquet, W. E. Conrad; by-laws and rules, J. H. Riddel; entertainment, A. P. Allen; prize, J. B. McLaughlin; schedule, A. S. R. Smith.

Team captains: Engineers, J. B. Ebert; Maintenance, F. Heimbach; Suburban Commercial, L. H. Larson; Installation, J. H. Riddel; Revenue, P. Wendorf; Commercial, M. P. Flynn; Traffic, A. S. R. Smith; Construction, H. H. Lovell; Collectors, W. McMonies; A. T. & T., H. E. Lorman.

News by Long Distance

The News Gathering of the Future from the Telephone Viewpoint

By Hrolf Wisby—In the Publishers' Guide

"How do you find out so quickly about things?" is the question the layman always asks the newspaper man. If the latter stops to think he answers "Over the telephone, of course."

There is probably no profession in the world that has so completely changed its methods of procedure, as has the business of news getting during the past ten or fifteen years. The liberal use of the local and long-distance telephone has not only speeded up the business all along the line; it has created an entirely new type of newspaper man.

There are men still at work on Park Row who remember the time when a fire late at night in Harlem was left unrecorded until the issue of the following day. The following which appeared on the front page of a New York newspaper is not beyond the memory of the old-timer:

"As we go to press there is discernible from the window of our office, a great red glare in the north which indicates a conflagration of considerable size. A full account of this will appear in tomorrow's issue."

Nowadays the Harlem "leg man" would be glued to a telephone, busily engaged in sending a list of dead and injured long before the glare would be "discernible" to those in his office.

Now the reporter of twenty years ago was not any slower mentally or physically than the newsgetter of today, in fact, if the truth be told he was probably fully as alert and in many instances more ingenious. It was simply impossible for him with the means of communication that he had to get news to the public within what we would consider today as a reasonable time after its occurrence.

The modern newspaper came into being with the telegraph cable, but it did not come into its full growth until the value of the telephone was first realized by editors and reporters. The heart of the newspaper office of today is the row of telephone booths in every city room. The most valuable man in the shop is no longer the editor with inkstains and flowing black tie but the little man over there in the corner with the head set, who is pounding out copy on his machine as fast as the voice at the other end of the wire reels it off.

The efficiency of the new way of news-getting was probably put to its sternest test in New York one crowded April night a year ago. The *Titanic* had sunk and the sturdy *Carpathia* was bringing back its survivors. No real story of the disaster could be printed until it came from the lips of those aboard the returning steamship. The wireless had given but tantalizing hints of what had happened out there in the great depths. Every city editor in New York knew that he was face to face with one of the crises of his professional life. He knew that it was a time when the world would sit in judgment on the speed and accuracy of his organization of which he had so often boasted. It is significant that at such a time he showed his faith in the telephone by adopting it as the means by which this "greatest story since Gettysburg," should be told to the nations.

And at the other end of the telephone wires going out of New York, in Boston and Philadelphia newspaper offices, in Washington and Chicago at receivers all the way to Omaha, the press of the United States was awaiting the first definite word of the disaster. Faces strange to Manhattan reporters appeared along Park Row. The star men of out-of-town papers were pouring into town to cover the night's developments. They were fortunate, these newcomers, if their papers had branch offices in New York from which they could send their stories over the long-distance wires. Those who had no offices were down at the American Telephone and Telegraph Company's building making arrangements for clear wires, through to their home towns. The telephone's duties were not by any means to stop at local service. Over valleys and rivers and mountain ranges the copper wires were called on to carry the story of the *Titanic's* loss.

Early in the day that the *Carpathia* was to dock, installers from the telephone company were at work in the newspaper offices putting in instruments especially adapted for the work to be done. A small hotel directly opposite the *Carpathia's* pier was selected as the sending end. The entire hotel was given up for that night to the newspapers. Each paper hired a room where telephone instruments that had direct wires leading into the offices were installed. Then came the selection of the men who were to handle the story. One by one the members of the staff were called to the city desk and given their assignments. It was the "telephone reporter's" day. One man

ordinarily a good newsgetter but notoriously inefficient on a telephone, came as perilously near to tears as a newspaper man ever should come, when he found that he was assigned to a meeting in Brooklyn that night and would have no part in the handling of the big story. A reporter said afterwards that the most trying part of all that trying day was waiting around in the afternoon with "nothing to do but watch the installers at work and wonder what his night's work would be."

By 8 o'clock in the evening everything was ready. In the offices, the men who were to take down the stories were oiling up their typewriters, or fiddling with their head-sets. Uptown those in charge of the telephones were issuing final instructions. As soon as a reporter had interviewed a survivor and got what he considered to be a true story, he was to sprint for his paper's room in the hotel, take the telephone assigned to him and dictate from his notes direct to the man in the office his account in the shape in which it was to appear in the paper the next morning. Even to one accustomed to dictating, the difficulties of composition and transmission under such nerve-wrecking surroundings must be at once obvious.

A light drizzle began to fall and then far down the river sounded a deep warning whistle. Presently the bulk of the slow-moving *Carpathia* heaved out of the drift, lighted every now and then by the flashes of the photographers' powder on a dozen little tugs alongside. The hotel across the way began a small bombardment of its own. Out of every window photographers were leaning, setting off



REPAIR GANG AT WEST PARK, OHIO, WHICH PAUSED A MOMENT TO BE SNAPPED.

their flashes until the whole great rain-dimmed plaza was bright as day. In a moment the newspaper men were at their work. Every survivor was surrounded by an eager rain-coated group writing as fast as pencil could be pushed across copy-paper. Every now and then these groups would break up and their members come splashing across the square in a rush for the telephones. Then began the work of dictation. These men knew their business. They neither bellowed nor whispered into the receivers, and while the little hotel rocked under the tread of many feet and shivered under the successive detonations of powder, they went calmly on telling the story of the wreck as it was told to them.

In the offices on Park Row and uptown the machines were clattering in tune to the voices on the wires. The men at the receiving end had ears only for what those voices were saying. The noise of the room was cut out for them by their head sets. When they finished a page the copy-boys rushed it to the copy-readers and in a moment it was on its way to the composing room.

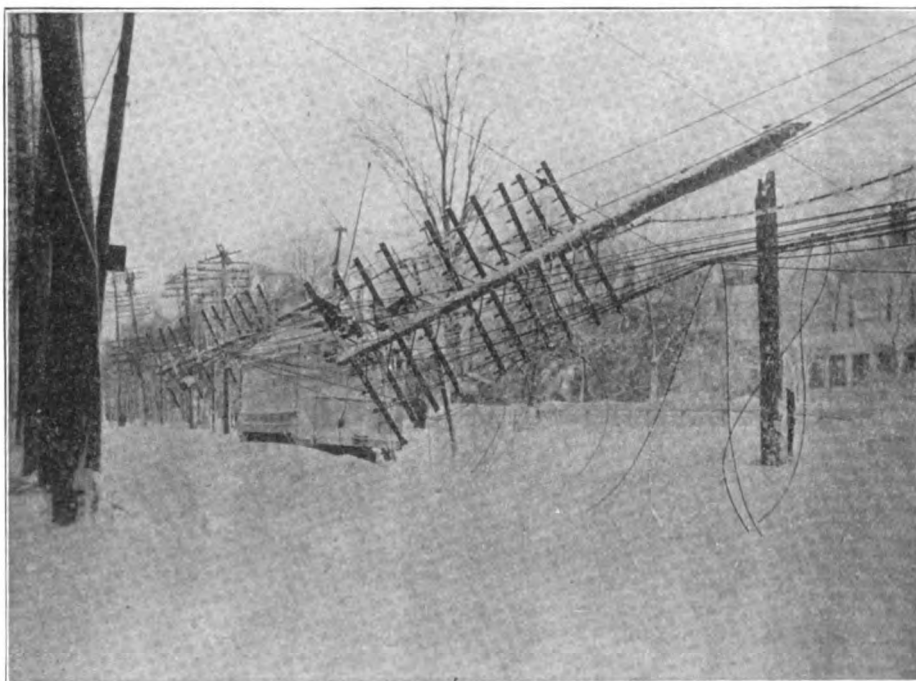
Those who read the first editions at 1:30 o'clock the next morning knew nothing of the manner in which they had been prepared, but they did know that they had in their hands complete and graphic descriptions of the world's greatest marine disaster. The telephone had made good.

In any discussion of the relation of the telephone to news gathering, it is a mistake to suppose that it was an overnight development. The handling of the *Titanic* story has behind it years of struggle on the part of many telephone men in many different places to make those instruments in that uptown hotel equal to just such an emergency. The history of press news service by telephone is like the story of the telephone itself, one of slow growth, lingering development.

Everyone knows how long it took the people of this country to awaken to a realization of what the telephone meant. The early struggles of Bell and his associates to give the people what they wanted are frequently cited by those who contend that as a rule the people do not know what they want. The popular picture of an editor is that of a man always a little ahead of his times, who is ready to grasp at any innovation that will help speed up his business. But one of the greatest editors of our times fought for years against the introduction of typewriters in his office. The editor as a matter of fact has as deep-laid prejudices against anything new and as large a quota of innate inertia in his make-up as the lawyer or doctor.

The real fight on the part of the telephone people to make the editors of this country take what would do them good began back in 1908. The editors, some of them, protested with the whole-hearted vehemence of the small boy face to face with castor-oil. They were content with the present methods, thank you. They did not see that their business field had extended far beyond the resources of any one means of communication. They did not want any more telephones in their offices. Once they had called up their wife and had been given the wrong number. The stuff might make them well, but they didn't like the taste. Very well, said the telephone men, we will show you that not only will it make you well, but that you will like the taste so much that before long you can't get enough of it.

It was in Ohio at last, far away from



WIRE CONDITIONS AFTER CLEVELAND STORM.
Many Telephone Lines Fell Across Trolley Wires.

Nassau street, the true home of conservatism, Ohio and the middle west, that is not afraid of a thing because it is new, that the telephone people won their first round of the fight. They got a big press association to put in a telephone news service. This first service was known in the telephone thesaurus as "P.N.D." and "P.N.D." took things by storm. Public news disseminated by telephone was a new thing under the sun, but it was soon to become mighty popular.

At a certain hour every day trained men in the offices which took the service, put on their head sets, filled their pipes and sat down at their typewriters ready for business. Then the voice of the man in the news bureau's office began to tell of marriages and divorce, of love and death and two-headed hens, of train wrecks and floods, of tornadoes, and twins, and as he talked the men at their typewriters set down the very latest word

of the latest things that this most interesting world was doing.

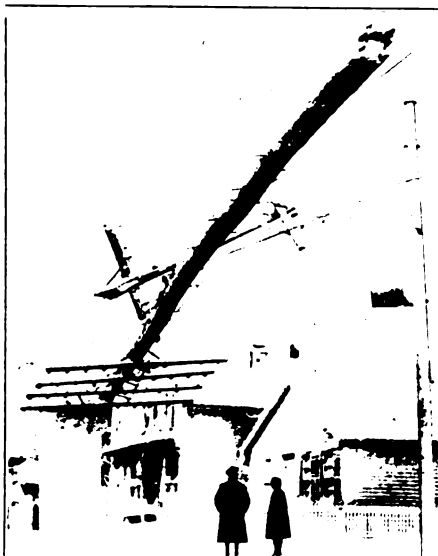
At first, as the telephone men had suspected, the novelty of the service caused trouble. Many words are hard to get over a telephone wire. Edison, in a recent interview, says that no one can understand "scissors" over the long-distance wires. So the newspapers sent for the telephone people for help. The latter were ready. They had been training men for just this sort of advisory work. A "flying squadron" of experts went forth into the offices teaching reporters the fundamentals of this new art.

They showed the "rewrite men," as the reporters at the other end of the telephone wires in most offices are still called, the necessity of getting proper names straight and impressed upon the senders in the news bureau the necessity of seeing that they were sent straight. The method of giving a word whose initial begins with the letter in question is one that is very popular.

"Taft—T for Thomas, A for Alfred, F for Frederick, T for Thomas," is a familiar enough way of transmission to any experienced reporter.

Another method of transmitting troublesome names was that in which each letter of the alphabet was numbered and the number repeated after the letter. This requires considerable practice, but those who use it have found it practical.

Then the "flying squadron" had to teach newspaper men to enunciate clearly. The reporter who howls his story into the telephone, the reporter who mumbles, the reporter who grabs up the instrument and talks across the top of it, one and all had to be shown that they were not getting the most out of the service. The good telephone reporter knows that there are certain rules that must be obeyed in telephoning and that the violation of these rules will result in disaster. To speak clearly in a carefully modulated voice with the mouth a certain distance from the transmitter so that every shading of tone goes across the wires to its mark, and to do this in a room full of uproar and confusion, is no small



STORM CONDITIONS IN CLEVELAND.
Another Bad Tangle With Trolley Wires.

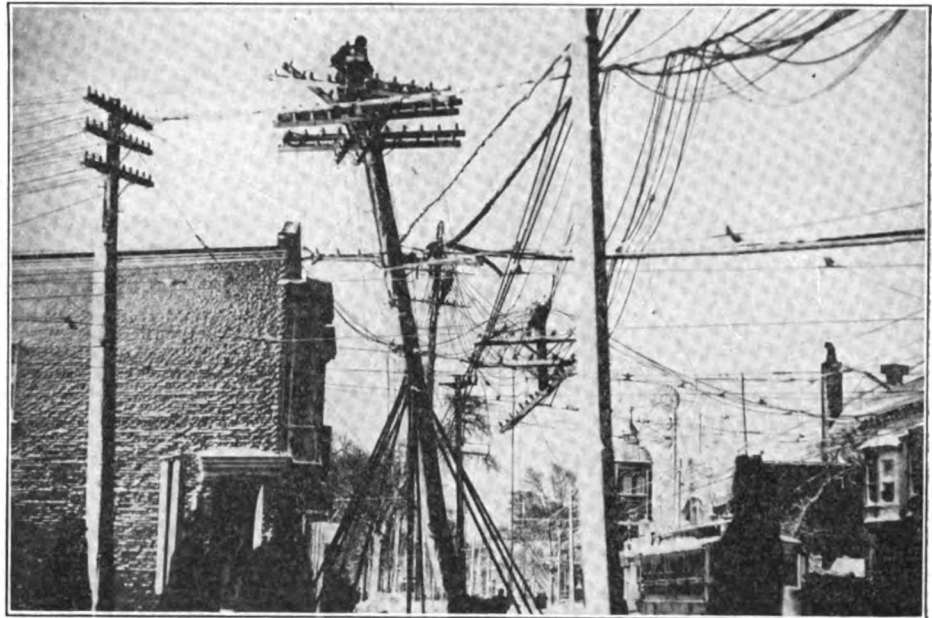
achievement, and is something that requires constant practice. There were tricks, too, to be learned at the other end of the wires. The rewrite man found that it was better to keep a little behind the dictation than to attempt to keep up or even go ahead. Gradually the men with the head-sets and typewriters grew more and more proficient. An expert can now take as many as seventy words a minute, though he rarely attempts it. Fifty to sixty-five words is the rate at which the best of them get the news.

The telephone men gave more than advice to the rewrite men. They provided them with specially made instruments. The headset gave the reporter the free use of both hands. Then came the instruments with the little button on the side, called transmitter cut-outs, which, when pressed, break the circuit so that the man on the other end cannot hear what is going on at the receiving station. But as a reporter would have to use one of his hands to operate a push button, a foot-button was invented, which is now in use in many offices. This cuts out from the transmitter and receiver all the noise in the receiving room and is a great aid to clear transmission.

In the large newspaper offices all the telephones are equipped with these buttons and they are mighty valuable at certain times. The reporter who has called up some prominent citizen only to find that he won't talk, wishes to tell the city editor, without being overheard by his victim. So with his finger on the button he reports without leaving the telephone, receives his instructions for further attack and the citizen is none the wiser.

The last minute news was getting into the offices of those papers that took the telephone service just a few moments before it reached the others, and a "few moments" mean everything in the world to an evening newspaper man with editions to make.

The news associations that had hung back, looked about them and discovered what the telephone was doing in other professions. They found that in spite of



WIRE CONDITIONS IN CLEVELAND AFTER STORM.
This Looks Like Total Ruin.

the initial skepticism of railroad men, trains were being dispatched a little better by telephone than they had been by telegraph. The most progressive railroad managers, they discovered, were keeping the Western Electric shops at Hawthorne, Ill., where the telephone apparatus is manufactured, busy turning out dispatchers' sets. Surely, they bethought themselves, if so complicated an operation as train despatching can be efficiently handled by telephone the same thing can be done in the newspaper business, and one by one they came in.

The men of the commercial departments in the telephone companies set to work making contracts. Hours and length of service over the leased lines had to be carefully worked out. At first the rates were based on the number of words sent, but presently this was found

to be unsatisfactory and rates were made on a time basis.

From Indianapolis, for example, a press association was sending its news over the telephone to the *Terre Haute Post*, the *Princeton News*, the *Vincennes Sun* and the *Evansville Press* at periods between 10:40 and 10:45 a. m., at 12:50 and at 1:50 to 2:00. Into the newspaper offices from every large city the tale of the world's doings was speeding across the fastest means of transmission known to man—the telephone wire.

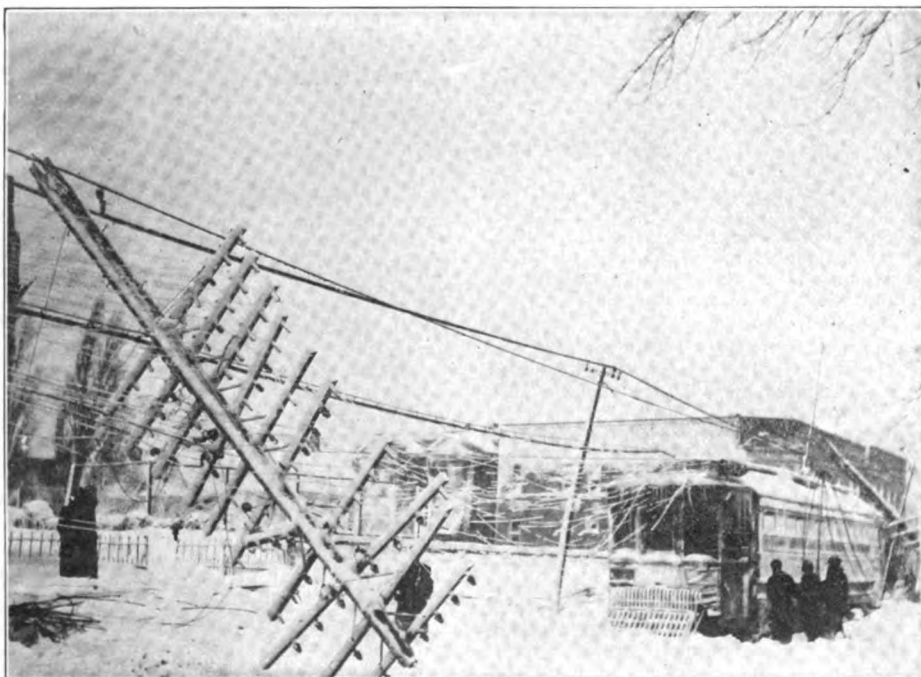
Soon it was found that further development was possible. News by the P.N.D. process was simply being sent and the receiving end was doing nothing. But one day just as the evening papers were going to press, a voice came from one of the receiving ends, caught by all the ears at the other receivers, and it said:

"Hold your wires a minute, a murder has just broken out and I'll give you the story."

Every paper that took that service came out with a clean beat on its rival and P.N.D. was changed to P.N.T. For the telephone service had become more than mere disseminations and the expression Public News Telephone covered the service that worked both ways.

Now the short-period talking contract that had been introduced in the business world, over the long-distance wires became popular with newspaper proprietors and they took advantage of the reduced rates it offered. A ten-minute service in specified hours was introduced and it soon came about that not only were newspapers printing more news and printing it more quickly after its happening, but they were also saving money by this new method. There was a greater liberty to pick and choose the news that they wanted than before. One of the greatest expenses in a newspaper office is caused by the correspondent who uses no judgment but dashes to his typewriter with fulsome accounts of events of no importance. There was now at hand an easy method of choking off this waste by simply hanging up the receiver.

The chances for a real beat are becoming less and less yearly, but the experienced newspaper man realizes that in nine cases out of ten the beats come from the live correspondent who uses



WIRE CONDITIONS AFTER CLEVELAND STORM.
Corner Sixty-fifth and Detroit Streets.

the telephone wisely. While his competitor is wasting valuable time in the agonies of composition, he is telling his story over the wire in his own way. He leaves the phrasing of the introduction to the trained writer in the office and has none of the horrors of a struggle with the past participle or the attempt to cram all the news into one sentence.

The handling of news over the telephone in a systematic way begins then with the news bureau disseminating service, branches into a service that works both ways, and takes in short-period talking contracts. Alongside of this is the great business done in haphazard fashion in every newspaper office which the telephone companies propose to systematize as far as possible.

You saw how ably the telephone stood up under the acid test of the chronicling of the *Titanic*. This was because there was a definite scheme worked out in advance with an eye for all unexpected emergencies. Now the telephone people announce that they have a scheme for systematizing the whole field of newspaper correspondence and they believe that their new scheme will be as successful when it comes to day by day transmission of news as it was on that eventful night a year ago.

The new departure is briefly this. Every paper of any importance has correspondents in all the large cities all over the country. A special press toll service has been worked out after several years of strenuous activity on the part of the commercial offices of the telephone companies by which the telephone people are able to offer a discount to the newspapers on the rates charged for long-distance telephoning by correspondents. This service is offered only the press.

The correspondent of the paper that makes a contract for a long-distance terminal will call up his office when he has a story, reverse the charges and telephone his story direct to the telephone reporter in the office, who takes it on his typewriter or in long or short hand as the case may be. There is a reduction of the rates in such a case of from 10 to 20 per cent.

It is at once evident to what degree the whole business of news transmission will be speeded up. As the electric speed of the telephone outstrips the telegraph or mail or messenger service, so the newspaper that takes this new service will outstrip its competitors. The perplexities of transmission are simplified a hundred fold by this new service. There will no longer be the necessity for the correspondents awaiting the reply to the number of words desired. Immediate requests for later news can be made. When the newspaper proprietor realizes that tests show that approximately twenty words a minute can be taken down in longhand over the telephone, sixty on the typewriter and 125 by shorthand, it is plain what the new service offers as far as speed is concerned.

The Press Toll Service has the same advantages as the other telephone services, in that the telephone reports will give only the important facts. The telephone reporter, or rewrite man, can instantly get from the correspondent any further details desired on any particular point.

But it is after all the broadening of the scope of service that will make particular appeal to newspaper men. The whole great Bell system is thrown open to the use of the press. The telephones go to 70,000 places in this country. The

telephone covers 5,000 more cities and towns than does the postoffice and 10,000 more than the railroads. Accessibility of facile means of communication is one of the first requisites of good news service. The correspondent need no longer hesitate to use the long-distance telephone. He knows that behind that telephone is an army of 150,000 working day and night to keep the wires open for his story. He had heard, perhaps of the standard of efficiency of the telephone organization. When he has the further assurance that there is waiting at the other end of the wire a man trained to the use of the telephone ready to take down his story as fast as he sends it, he will quickly adapt himself to the new order of efficiency and his value to the paper he serves will be immeasurably enhanced.

The day will soon be here when an event of importance to any considerable number of persons, be it in a place ever so remote, can be reported almost instantaneously. Speed will not be sacrificed to accuracy but rather there will come into the newspaper business a wider range of vision, a more comprehensive survey of the world's happenings. Linked with an organization whose ideal is universal service, the possibilities for modern journalism seem indeed limitless.

Emergency Transportation of Operators

Whenever an interruption of the regular transportation facilities occurs the traffic department is confronted with the problem of getting operators to and from central offices. In most lines of business the exact hour of reporting is not as essential as with the telephone service; the number of operators going on duty each hour is usually adjusted accurately to the routine during a specific time.

At Indianapolis recently street car service was suspended for a week, and it became necessary to arrange for transportation of some 225 operating employees to and from their homes. The remainder of the operating force fortunately lived near enough to their respective offices to be within walking distance.

Experience with flood and storm has taught, those in charge of the traffic department the advantage of keeping an alphabetical card file of all employees. When such an emergency as the one above referred to arises the alphabetical file is broken up, the cards being assorted by the hours assigned each individual. The hourly groups indicated by these cards are then assorted by street addresses for transportation purposes.

As the street car service stopped about midnight, or slightly before, and after the evening operators had gone home, the first shift to be handled was the one reporting for duty in the early morning. The routing of the automobiles for these operators was so arranged that taxi-cabs should be standing on their routes about 4:45 a. m. Before seven o'clock fourteen taxis were in use, transporting operators direct to the central offices. After two days of this service the taxi-cab company submitted a routing of the vehicles, claiming that their knowledge of the paved streets and the best automobile routes would enable them to get the operators to the Telephone Company's offices just as quickly but more economically. Their plan failed to prove out, however, and the original

scheme was followed for the balance of the week.

The method adopted provided that each operator should indicate the point at which she usually took the car. Automobile routes were then laid out along the car lines, or upon the nearest paved streets. Accurate time schedules were applied to these routes, fixing the meeting point for each operator. Every operator was provided with a ticket giving her name, the meeting point and scheduled time for automobile. This ticket served as a means of identification and was turned over to the automobile driver. Instructions were given the drivers to follow the schedule, which provided for a wait of five minutes at each meeting point. If the operator failed to appear at the appointed time and place, the driver called in for instructions.

In order to reduce the expense to a minimum, new hours were assigned all operators, keeping in mind their geographical grouping. Split tricks were cut out as far as possible. The system worked admirably and practically the whole force reached their offices and their homes as promptly and as quickly as if the street cars had been running. Further saving was effected by obtaining boarding places for many of the operators near their offices. This plan was followed wherever it was agreeable to the operator and her parents.

The following trips were required of the taxis:

Between 5 a. m. and 8 a. m., 25 trips.
Between 8 a. m. and 12 m., 14 trips.
Between 12 m. and 4 p. m., 11 trips.
Between 4 p. m. and 10 p. m., 40 trips.

About ninety per cent. of the trips were to and from the Main office.

The plan as outlined has been followed in all similar emergencies, the only deviation from it occurring on election night when a large number of operators were required, to handle election business. On that occasion, forty operators were quartered in hotels.

General Manager Whitney received the following letter of appreciation from the forces:

Indianapolis, Ind., November 17, 1913.
Mr. L. N. Whitney,
General Manager,
Central Union Telephone Company.

Dear Sir: Your employees desire, at this time to tender to you, and through you, to the Company an expression of appreciation for the kindness bestowed during the disagreeable period of general suffering which deficient transportation produced.

We know that our welfare at all times is of moment to the Company. Such knowledge does not lessen our gratitude, but tends to strengthen a realization that the interests of the Company and employees are identical—and we believe the Company's attitude will prove a source of greater energy that will be valuable to all concerned. Very respectfully,

Employees of the Plant Department.
Employees of the Traffic Department.
Employees of the Commercial Department.
Employees of the Department of Division Auditor of Receipts.

The Things They Ask

A woman living in an aristocratic suburb a mile and a half from her grocer goes to the telephone:

"This you, central? 454, please."

"This you, Mr. L.?"

"Please charge and send ten cents worth of animal crackers and pick out the elephants, as the baby is afraid of them."
—Retail Grocers' Advocate.

Gold Medals to Telephone Heroes

Governor Cox Pins Decorations on Thomas E. Green and John A. Bell for Services to People During Floods

In behalf of the people of the state of Ohio, Governor Cox, at the executive chambers in Columbus Friday morning, October 24th, presented to John A. Bell of Dayton, and Thomas E. Green of Columbus, Central Union telephone men, gold medals awarded them by the legislature in recognition of their bravery and splendid service, given during the flood last spring.

By almost superhuman effort, and under great peril, these men made it possible for flooded cities to get into touch with the outside world and thus secure help that prevented great loss of life. Mr. Bell is district plant chief at Dayton, while Mr. Green is division toll wire chief at Columbus.

The presentation ceremony was very impressive and was witnessed by a small party of friends of the recipients of the medals, state officials and visitors to the governor's office. The Central Union Telephone Company was represented by R. R. Stevens, commercial superintendent, and J. W. Cherry, plant superintendent. Mrs. Green also witnessed the ceremony. In presenting the medals, Governor Cox said:

"Mr. Bell and Mr. Green:

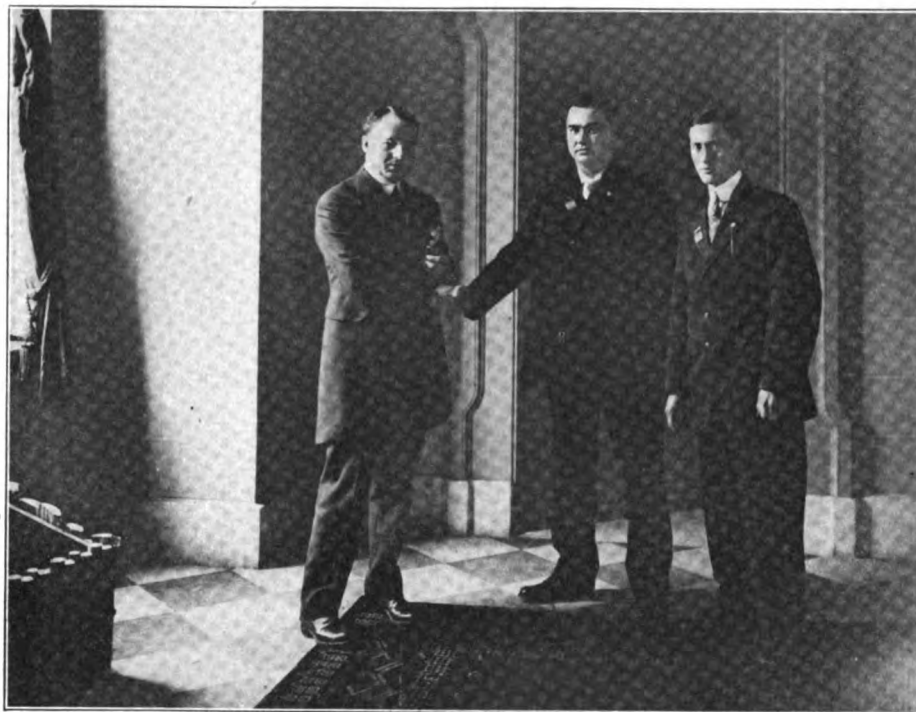
"It is rarely that the chief executive of this state, or any other state, has the opportunity and the privilege of acknowledging the gratitude of a commonwealth in behalf of two men in private life who have rendered a most splendid and useful service to the communities of the state. You gentlemen are entitled to the credit which is now recognized by the legislature and the executive departments of this state government. You two men faced a great public peril and a genuine necessity, and you both met them like men. I am not prepared to say that every community in this state would not have the citizenship which would have yielded at least one man who would have performed his service as heroically and as splendidly as you men, but it would detract from the credit which is due you to carry into this little function this

morning this assumption, because it deserves no part in the consideration of the things that we desire briefly to talk about.

"I remember, and the newspaper men here assembled remember very well, that so soon as the flood struck Ohio, apparently the whole railroad organization of

his service with such despatch and with such power that his personality impressed itself upon this department and upon the newspaper men in the state. The newspaper stories of the first day's flood were written upon information gained by Mr. Green, and he was not serving as the representative of the newspaper men exclusively. He had become the representative of all the communities in this state, and the information which he gained had come to him in an effort to render assistance to all.

"Now, there is just another suggestion with reference to Mr. Green. There are two heroes in the Green family. His



PRESENTATION OF MEDALS AT COLUMBUS, OHIO.
Left to right: Governor Cox, John A. Bell, Thomas E. Green.

this commonwealth was absolutely paralyzed, and we were without any means of communication whatsoever. It was not long after daylight that we had a call from over in the direction of LaRue, a call in behalf of 200 women and children, stating that unless boats were gotten there quickly that their lives would be beyond question, destroyed. That was my first introduction to Mr. Green. Within a few hours after the first blow of the flood had been struck, about ten o'clock in the morning, we had no means of knowing what communities had been devastated. The first information came to us by telephonic flash from Washington, D. C., that the city of Dayton had been destroyed, and the Red Cross desired to know what service might be rendered. Within an hour afterward, this building was almost a mad house, people coming here from every community in the state seeking to gain some information, and then it was that Mr. Green manifested his service. He picked up wires everywhere. He seemed to act with great facility and power, and the newspaper men can bear testimony to the heroic service and power which Green rendered when we needed him. I expected to see, when Mr. Green was ushered in this office some five or six days after the flood, a great big, powerful, sinewy man because he performed

little wife was suffering in the hospital and she sent to him the assurance, 'You have enabled me to recover. You are making me happy, but go back to your place of duty and render service there in behalf of the stricken people.'

"It is because of the service rendered in this conspicuous manner that the Ohio legislature, sensing as it did the proprieties of the occasion, saw fit to pass a resolution making an appropriation for the purchase of a medal. And now, Mr. Green, it gives me the greatest pleasure, knowing full well as I do the service which you rendered, to give to you as the emblem of a peoples' tribute, this badge of honor.

"It was about eleven o'clock on the first day of the flood when I heard from the city of Dayton, to which I am naturally much devoted. If there is one characteristic of the people of Dayton, it is that they look upon that beautiful city more or less as a temple, and we here, removed seventy miles, received the news that it had been destroyed. About eleven o'clock Mr. Green said: 'We have word from Dayton,' and then it was that Mr. Bell appeared upon the scene, of course by wire.

"Mr. Bell's building, in Dayton, the Bell Telephone Company building, had been flooded almost to the second floor. The batteries in the basement had nat-



FACSIMILE OF MEDALS PRESENTED TO THOMAS E. GREEN AND JOHN A. BELL.

urally been covered with water, and, as I understand the situation, Mr. Bell succeeded in vitalizing one wire by hooking together a number of dry batteries, and he gave to us the first message from Dayton. He reported the progress of the flood as he saw it from the roof of the building. Being familiar with all the physical characteristics of that part of the country, I knew perfectly well that a great calamity had befallen the city. Mr. Bell would go to the top of the building and make observations and report them to us. He remained there day and night and never left there. I remember perfectly well on one night that as I went out of here in the evening to get some sort of food, nature never before seemed so pitiless. These cities all over the state were flooded, Dayton had from eight to fifteen feet of water in her business section. Zanesville, Marietta, Tiffin and Delaware were asking for troops and for food, the information being that the people were hungry. The next morning there seemed to be no abatement in the fury of the elements, and I knew how heartsick the people of Dayton must be because there were marooned in the business buildings alone 12,000 people who were without fire, and it was an intensely cold day. I was almost afraid to talk to Bell. I rather felt he must have been chilled on account of his environment, but Mr. Green said: 'I have Bell for you,' and I told him I would let Bell talk first. It was snowing and raining here that morning and the cheery voice came from Bell, 'Good morning, governor; the sun is shining in Dayton this morning.' You can't imagine, my friends, although it may seem insignificant now, how it cheered us to know that the heroes in Dayton were standing by it. On Wednesday night the business quarter of Dayton was on fire. Bell crawled to the top of his building and could see the imprisoned people in the business structures getting out on the roofs, running from one building to another, keeping ahead of the flames. He reported to me that in his judgment the business section of the city would be destroyed, and that was our thought here. There didn't seem to be any other result possible, but he said: 'Governor, don't worry, I will stay here and keep you advised until this building goes. I think I have an even chance to get away. I think probably that by the use of ropes and other things that we can get out of the building and save our lives, but we will remain here to the last. Go on in the assurance and under the belief that I shall stay at this post of duty until the flames drive me out of the building.' Mr. Bell remained until the waters had subsided. He stayed there until willing hands came and relieved him, and he has rendered conspicuous service in behalf of the people of this state and has reflected credit upon the citizenship of the good people of Ohio, and it therefore, Mr. Bell, gives me the greatest possible pleasure, to pin on you this testimonial of a peoples' gratitude."

Pipes Getting Clogged.

"Yes," said the old reporter, as he stood talking to a friend where Andy Horn's used to be; "I had to quit the business."

"Were you getting too old to hustle?" asked his friend.

"Oh, no," he replied, "but my voice gave out! For the past six years I never wrote a story—telephone them all—and then my speaking tubes gave out."—*Editor and Publisher.*

Collections By Mail vs. Collections By Collectors.

By M. L. Saunders, Exchange Area Manager, Bay City, Mich.

Much has been said and written about collections by mail as applied to the telephone business, but the true worth of this plan can never be appreciated until one has had personal experience therewith. There is much to be said in favor of the plan of collecting by collectors as well, and on account of the divided opinion on this subject we will consider but one phase of the mail plan which has appealed to the writer after some experience with it in an exchange of 3,000 subscribers.

It has always been our belief that we know the majority of our subscribers because at least seventy-five per cent. of the business men in our city are personal acquaintances. After the mail collection plan went into effect, however, we discovered there were hundreds of subscribers whom the manager should know, but does not. From these letters we have heard comments on our service, billing methods, repairs, and in fact, on every branch of the business. These comments have been enlightening, to say the least, and from each talk with a subscriber we have extracted some good idea that can be applied to our work.

When a collector or manager calls upon a subscriber to collect a bill the one idea of the party interviewed is to get rid of the collector as soon as he can, either by paying the bill or by putting him off until the next call. If the man is busy, or if the housewife is particularly engaged, as the case may be, they often forget to tell us of their grievances, or to add the word of praise that so helps the conscientious manager in his work; but let them call at our office with nothing on their mind but the paying of the bill and a possible load they want to "get off their chest" in connection with the service they are receiving, then we hear a different story. The manager is there, ready to receive any complaint on the service, and the subscriber has come all the way to the office with nothing to do at that particular time aside from his errand. The result is that the company's representatives and patrons get together with mutual benefit. In a great many cases irregularities which have existed for months without a word of prior complaint having reached us, are thereby rectified.

Too much cannot be said of any plan that will bring the company's representative and the subscribers together. It is manifestly impossible for the manager to visit every subscriber, and particularly those who have difficulties and do not take the time to report them; therefore, if he makes it easy for everyone with a grievance or any one interested in the work to get nearer to us at our office, he has done much to create a better feeling and give himself a more intimate knowledge of the service he is selling. At least once each month he will hear from his subscribers in no uncertain terms if there is cause for complaint, and he may have also, an experience like the writer, who received many favorable comments from people whom we formerly considered simply as "Lease 41,144."

Many other favorable things may be said in support of the plan, but chief

among these in our mind is the indisputable fact that it brings the people and subscribers and the company's representatives closer together, a thing as necessary to one as to the other.

An Unusual Compliment

It is gratifying when the subscribers of an exchange take any special interest in the changes among officials or employees in charge of their service. This fact adds unusual interest to the following letter, written on the stationery of the *Gas City Journal*:

Gas City, Ind., Oct. 4, 1913.

Mr. C. N. Nesbitt,

Indianapolis, Ind.

Dear Sir: Having learned that there is to be a change in the management of your office here, and that we are to lose Mr. Mattox, with whom we have just begun to get acquainted, we are taking the liberty of offering a suggestion.

You have one man connected with your office here, Mr. R. M. Clifton, whom we have known for some time, and having watched him since he first came among us, we do not hesitate to suggest him for the position of local manager. No doubt you know his qualifications well. His promotion to the position of manager would be very pleasing to the business men and others in our city.

During his stay here he has made a good citizen, attended strictly to business, and by so doing has made himself very popular with patrons of the local exchange.

The appointment of Mr. Clifton, we feel, would greatly strengthen the already friendly relations between your company and its patrons.

This action and letter is entirely without the knowledge of Mr. Clifton.

Respectfully yours,

(Signed) J. E. LEONARD,

Pres. Business Men's Association and Mayor.

EDWARD BLOCH,

Pres. Commercial Club.

F. R. SPURGEON,

Cashier First State Bank.

O. GORDON,

Furniture Dealer.

C. E. VAN VALER,

Secy. Business Men's Association.

JOHN F. LINN,

Secy. Commercial Club.

L. C. FRANK,

Undertaker.

WALTER L. LEACH,

Editor Gas City Journal.

Mr. Clifton's qualifications had already come under the notice of his superiors and he was appointed to the managership.

Pressman Rylatt's Experience.

M. H. Rylatt, who dashes off leaders as a regular pressman on the staff of the *Guardian* of Boston, England, came to the offices of the American Telephone and Telegraph Company at 15 Dey Street yesterday and said that he lived in Old Leake, the Black Bay of the Anglican Hub, and that he had done almost everything in the world. One thing remained, however; he had never used the long-distance telephone and he wanted to talk over the longest possible distance.

To oblige Mr. Rylatt connections were set up with the A. T. & T. offices in Denver and over 2,000 miles of wire he heard of the unsurpassed Colorado climate and the general superiority of things western. Mr. Rylatt left the office stepping high, and if everybody in Old Leake doesn't learn just how it feels to talk across two-thirds of a continent it won't be Pressman Rylatt's fault.—*New York Sun.*

Indiana Exchanges Hold "Open House."

During November a number of exchanges in Indiana kept "open house" for several days to permit subscribers and the public to visit the exchanges, see the operators at their work and learn something about how telephone traffic is handled. While subscribers are welcome at all times to visit Bell exchanges, comparatively few do so and these "visiting days" were arranged and special invitations issued in the hope that a large number might take the opportunity to inspect the exchanges. The affairs were uniformly successful as shown by the articles below prepared by correspondents in the several exchanges.

AT TERRE HAUTE.

The Central Union Telephone Company's "open house" during the Annual Corn Show and Industrial Exposition at Terre Haute, Ind., proved to be the "Biggest Show in Town."

Thousands of visitors inspected the company's plant in response to Manager F. H. Kissling's invitation, which was extended for the entire week, beginning November 10th.

The Corn Show and Industrial Exposition, which was first started in 1912, proved such a success that the Merchants and Manufacturers of Terre Haute have established it as an annual affair. Its main object is to boost "Made in Terre Haute" products and as the Central Union Telephone Company's output per day at this point is equal to that of any other local institution, the manager felt that it was up to him to invite the public to inspect its product in the process of manufacture, as well as the machinery with which it is made.

Bad weather during the first few days prevented many from venturing out of doors, but as the week progressed the sun showed itself and with the exception of a little rain, balmy fall weather prevailed.

It became evident after Tuesday that the people would be coming in such numbers that it would be impracticable to assign one person to each group of visitors as a guide through the building, so as an alternative, employees familiar with each line of work were stationed in the various halls and rooms, and these directed and explained the apparatus and its workings to all who passed by. In this way the crowds were kept moving in so far as it was possible to do so, but when they reached the operating quarters and particularly the local switchboard, the rooms became so congested that on two different occasions it became necessary literally to force the people away from the board to allow a shift of the force.

"How can each girl ring any number you ask for?" "Where does my number come in?" "Do they bore new holes in the switchboard everytime a telephone is put in?" "Is this Information?" and "What a nice rest room this is," were some of the expressions heard.

It was exhilarating to feel the intense interest that was manifested on all sides by the visitors.

"The butcher and baker and the candlestick maker" were all represented, as was the banker, the manufacturer, and big coal operator, in fact every class of producer and consumer.

One of the first visitors during the week was the superintendent of fire alarm for Terre Haute, who was not only impressed by the telephone mechan-

ism and its operation, but by the absolutely fireproof condition of the building and by the fire fighting apparatus that was visible on all sides. As a consequence he arranged for the entire fire department force of Terre Haute to visit the plant and it became a usual sight to see a hose wagon, engine, or hook and ladder wagon, standing in front of the building, while the firemen went on a tour of inspection from the basement to the roof, down iron stairways and up outside fire escapes until the building had been covered. An expression from the chief that "If every building in Terre Haute was like this one, we would be out of a job" was certainly a compliment to the Bell Company's standard method of building construction and scheme of fire protection.

The newspapers, without exception, gave liberal space to the telephone company's reception. The educational value of an opening of this kind, where the public becomes better acquainted and more familiar with operating conditions cannot be measured in dollars and cents. Their attitude toward the company as a whole, and the kindly feelings for the operators in particular, are noticeably different thereafter.

During the week a total of 5,965 persons visited the plant. Friday's count of 2,081 showed the largest single day of the week, of which 1,415 people passed through the building between 8 and 9 p. m.

Manager Kissling had the entire building beautifully decorated with chrysanthemums, roses and carnations, together with palms and ferns. Three rooms on the second floor, with easy chairs, had been especially prepared as guests' rest rooms and an invitation to make these their headquarters was extended through the newspapers to Corn Show guests.

In the Industrial parade, which took place on Friday night, the telephone company's float was the source of much comment. It consisted of a huge desk telephone, twelve feet high and proportioned accordingly, made of galvanized iron, set on a high bed wagon and drawn by six horses. Walking at the head of each horse was a lineman in his full regalia—blue jeans suit, belt fully equipped and spurs. Although no prizes were awarded it was generally remarked that this exhibit was more typical of the business which it represented than any other in the parade.

Mr. Kissling was assisted in entertaining his visitors by I. N. Crawford, chief clerk; W. R. Fox, cashier; Alma Ecker, clerk; Maud Morrissey, clerk; Mate Flynn, clerk; Mattylda Fatthauer, clerk; G. L. Brown, collector; Celia Reisman, collector; L. L. Byrnes, collector; M. J. Deasee, commercial agent; Wm. E. Lucas, commercial agent; Samuel Ware, commercial agent; Otis Tichnor, commercial agent, and Harold Martin, commercial agent, of the commercial department. Frank Rolan, plant chief; William Shaw, chief inspector, and J. D. Evans, clerk, of the plant department. Mattie Harms, chief operator; Ruth Gillaspay, clerk; Nellie Smythe, local chief operator; Neva Schnell, clerk; Myrtle Standacher, supervisor; Grace G. Smith, supervisor; Kathryn Smyth, supervisor; Jessie Short, supervisor; Nell Bradley, supervisor; Sarah Hall, supervisor, and Ella Phillips, supervisor, of the traffic department. William M. Kendrick, district service inspector, spent the week at Terre Haute assisting in many ways.

In addition to those mentioned the manager was equally assisted by every other member of the entire force, whose every effort added to the success of the event.



EXCHANGE FORCE AT WASHINGTON, IND.

Photograph Taken After Successful "Open House."

Back Row, left to right—John Yarbrough, chief inspector; William Ellis, installer; Ray Smith, first repairman; T. B. Rhoades, second repairman; George Laube, collector; T. D. Bothwell, telegraph operator; F. W. Emmel, wire chief.

Second Row—Anna Benson, operator; Maud Campbell, operator; Aline Hyatt, collector; Sula Gregory, supervisor; Helen Dougherty, chief operator; Anna Colbert, cashier; Anna Rayman, operator; Mayme Zinkan, operator; Stella Beatty, toll operator; Mattie Fields, toll operator.

Third Row—Mayme Zinkan, clerk; Lula Crabb, operator; Ethel Bowling, operator; Clara Zinkan, operator; G. W. Dyke, manager; W. M. Kendrick, service inspector, Indianapolis; Nora Luke, operator; Ursula Duffy, operator.

Fourth Row—Helen Williams, operator; Lillie Buhner, operator; Martha Ishum, operator; Charles W. Brady, messenger; Mary Colvin, operator; Emma Kelley, operator; Flossie Miley, operator.

Telephone people from out of town who visited Terre Haute during the opening were J. Lloyd Wayne, 3rd, traffic superintendent for Indiana; E. L. Hamlin, district plant chief; H. B. Coldwell, traffic supervisor; Goldie Smith, traveling chief operator, all of Indianapolis; D. Finical, manager at Vincennes, and G. W. Dyke, manager at Washington, Ind.

AT WASHINGTON.

For three hours Saturday afternoon, November 1st, the public, at the rate of a hundred an hour, passed through the Central Union Telephone Company's exchange at Washington, Ind., inspecting the plant.

The opening at this point began Thursday morning, October 30th, and lasted until nine o'clock Saturday evening. The attendance the first day, as is typical of opening days, was only 287, while Friday and Saturday registered 643 and 782, respectively. This made a total of 1,712 adult persons who visited the plant during the three days, and had children been counted, a conservative estimate of the total number of persons that availed themselves of Manager Dyke's invitation would be 2,140.

Up to 1:15 o'clock on the afternoon of November 1st, only 130 persons had passed through the office, the balance, 652, going through between that time and 9 p. m.

Manager Dyke and his entire force is to be congratulated on the splendid manner and ease with which the crowds were handled. This can only be appreciated by those who are familiar with the quarters at Washington. At times the operating room and terminal room were impassable on account of the jam.

The whole exchange had been transformed from a serious looking business institution to a bower of flowers. Cut carnations in vases were everywhere and ferns were set in every little nook and corner. A piano, located in the commercial office, played continuously, and as a souvenir of the occasion each lady was presented with a carnation and each gentleman with a cigar.

Practically every visitor expressed himself as being surprised at the amount of equipment necessary to operate a telephone exchange, and the operating room, as usual, was the center of curiosity.



CENTRAL UNION FLOAT IN CORN SHOW INDUSTRIAL PARADE AT TERRE HAUTE, INDIANA.

Favorable comments were heard on all sides, and the manager was afterwards the recipient of several boxes of cigars from merchants, as a token of their appreciation of his courtesy toward them during the reception and for their good feeling and pride in finding that Washington is so well equipped with modern telephone facilities. Mr. Dyke was just recently put in charge of this exchange, and has made many friends for himself and the company.

After the last visitor had gone on Saturday night, the employees relaxed from the strain of the previous three days and spent a couple of hours in recreation. Mr. Dyke had arranged to entertain his entire force with a banquet. And some banquet it was. Two ladies of a dusky

hue had been engaged for some time past to prepare for the event, and the pile after pile of fried chicken, gravy, mashed potatoes, hot biscuits, jelly and what nots of eatables of all descriptions that they produced were sure indications that their labors had been diligent.

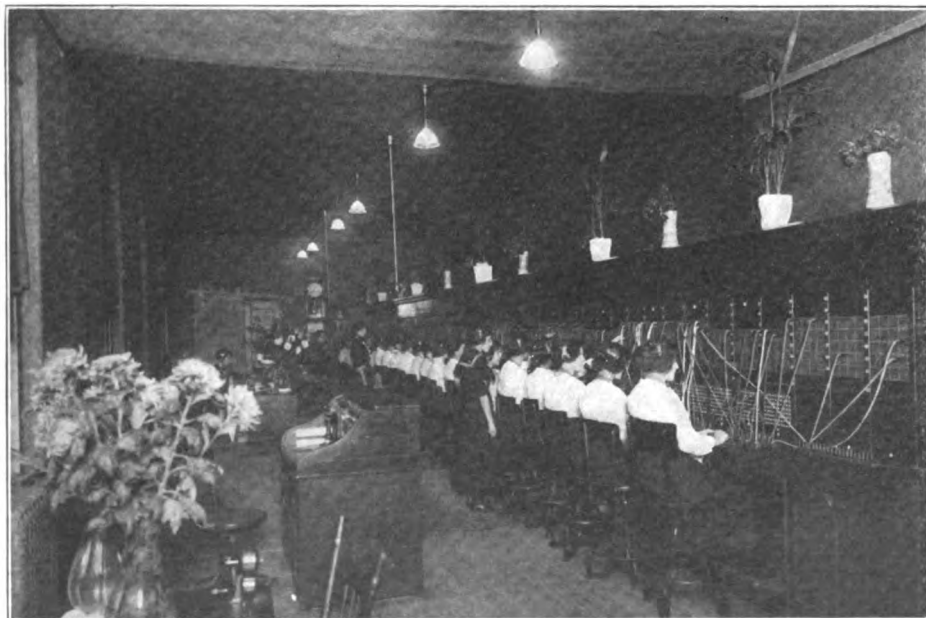
At the conclusion of the dinner, Manager Dyke thanked his forces for the efforts they had put forth for the success of the open house. He also called on W. M. Kendrick of the traffic department at Indianapolis, for a few remarks, at the end of which each employee was presented with a souvenir of the occasion. Horns, rattles, dolls that you squeeze, and other toys of a noisy nature were passed out and bedlam turned loose.

Guests from out of town were J. W. Stickney, commercial superintendent; A. R. Henry, division cashier; C. L. Sawyer, district traffic chief; E. L. Hamlin, district plant chief; A. W. Mann, special agent; D. H. Whitham, special agent; H. C. Mowwe, district plant inspector; and W. M. Kendrick, district service inspector, all from Indianapolis; P. S. Higman, manager at Bedford, Ind., and D. Finical, manager at Vincennes, Ind.

Mr. Dyke was assisted in entertaining the public by Helen Daugherty, chief operator; Anna Colbert, chief clerk; Aline Hyatt, collector; Mayme Zinkan, clerk; Miss Gregory, supervisor; Martha Ishum, operator; John Yarbough, chief inspector; Frank Emmet, wire chief; Tom Rhoades, repairman; Tom Yarbough, lineman; George Laube, collector; Ray Smith, repairman; T. B. Bothwell, Western Union telegraph operator, and Charles Brady, Western Union messenger.

AT VINCENNES.

An unusually successful open house was held by the Central Union Telephone Company at Vincennes, Ind., on November 6th, 7th and 8th. Manager D. Finical issued an invitation to the public through the newspapers that the plant would be open to its inspection on these dates, and



OPERATING ROOM AT VINCENNES, IND., DURING "OPEN HOUSE."

the way the people responded, and the favorable comments heard on all sides were a source of great satisfaction to all concerned.

The hearty support that was given Mr. Finical by every member of his force during the entire three days, where working schedules were forgotten and where the clock, as an indicator of "time to quit," was passed by unseen, proves still further the loyalty that is prevalent among Bell employees, not only at this point, but everywhere in the whole system.

The commercial office and operating room made the appearance of being a conservatory rather than a telephone exchange. Vases of long-stemmed chrysanthemums, cut carnations and huge palms and ferns bedecked the entire building.

Katherine DeJean, a pianist of some note in Vincennes, played a piano during visiting hours, much to the pleasure of the visitors. Carnations and cigars were

coming down, little lights of all colors appearing, apparently everywhere on the board at the same time, are, in reality, not manifestations of anything simple and to the uninitiated they magnify the already existing mystery.

Mr. Finical was assisted by Goldie Smith, traveling chief operator, H. C. Mowwe, district plant inspector, and W. M. Kendrick, district service inspector, all of Indianapolis, together with Mrs. D. Finical and daughter, Helen Finical, and Camilla Frank, also Mae Eschbach, Mary Kennedy and Irene Reinbold of the commercial department; Marie Ostheimer, chief operator; Edna Watson, Eugenia Thomas, Carol Williamson, supervisors; Nell Watson, clerk; W. E. Chambers, chief inspector; C. D. Hill, wire chief; M. S. Presson, switchboard man; John Beem, repairman; Owna Summerville, line foreman, and John Eschbach.



LUNCHEON OF BEDFORD, IND., EMPLOYEES AFTER SUCCESSFUL FOUR DAYS' "OPENING" AT THE EXCHANGE.

souvenirs of the occasion and these, presented as a farewell offering, assisted in leaving a good impression that will be hard to obliterate.

Mr. Finical had enough of his employees to act as guides, so that each group of visitors was given special attention, although near the last this became more and more difficult. The hours of the opening had been announced as between 2 and 9 p. m. On Thursday, the first day, there were 647 visitors. On Friday evening a hard rain kept away many that had planned to attend, yet, in the face of the inclement weather, there were 672. Banner day, however, was to follow, as Saturday's count showed a total of 1,553 persons, making a grand total for the three days of 2,872. The unusual attendance at Vincennes as well as other points during openings indicates surely the uncommon interest and curiosity of the public in general, as to the workings of a telephone. Their imaginative power often forms for them so many weird and vague conceptions of what an exchange is that a visit to an office still leaves, in most cases, a mystery unsolved. Hands flying in all directions, cords going up and connections

Outside telephone men who visited Vincennes during the opening were D. H. Whitham, special agent; C. L. Sawyer, district traffic chief; E. L. Hamlin, district plant chief; H. C. Mowwe, district plant inspector; W. M. Kendrick, district service inspector, all from Indianapolis; G. W. Dyke, manager at Washington, Ind.; P. S. Higman, manager at Bedford, and F. S. Shoemaker, manager, at Bloomington.

The operators who handled the switchboard during the opening were Gertrude Mueller, Catherine Thomas, Nelle Thomas, Helen Hoppenan, Corba Cox, Hazel Carter, Alice Strickland, Lillian Fishbeck, Helen Thelman, Alpha Cox, Nancy Neely, Ella Pfeffer, Ida Donnoe, Enola Turpin Clara Hauger, Carrie Daffron, Mabel Boze, May Steinger, Marie Farrell, Reba Kenley, Bessie Tinkle, Elsie Vanmoer, Blanche Boze, Catherine Morgan, Marie Summers, Edna Beckes, Sylvia Staley, Ellen Graham, Ada Hall, Lucy Hasson, Lillian Jones, Julia Mustin, Helen Draitm and Anna Williamson.

AT BEDFORD.

The opening at Bedford, Ind., announced by Manager P. S. Higman for

September 24th to 27th, brought a total of 791 visitors to the exchange. As the whole number of subscribers is only 1,630, the showing is considered remarkable. The opening was an unqualified success in every way.

To each lady visitor Mr. Higman presented a carnation, fifty-five dozen being used for the occasion, while cigars were passed out to the men. One young man with an unusual amount of curiosity visited the exchange five times, but seemed to lose interest when told that the cigars were all gone.

After the last visitor had gone on Saturday night, Mr. Higman entertained his entire force of operators and others who had assisted, with an informal lunch.

"It is hard to estimate the amount of good that is accomplished by an event of this kind," said Mr. Higman. "In taking the public into your confidence and showing them how your business is conducted, the possible chance for mechanical trouble and the load carried by the operating force, they immediately see things in a different light and are more lenient and sympathetic in their dealings. They find out that their own telephone is not the only one to be answered and that a telephone system is more than a couple of instruments hanging on the wall."

Mr. Higman was assisted by H. A. Guthrie, chief inspector; Amy Dodd, chief operator; Ella Campbell, cashier; Emory Love, collector, and W. M. Kendrick, of the traffic department at Indianapolis.

Officials who dropped in for the occasion were Frank Wampler, district commercial manager; C. L. Sawyer, district traffic chief, and R. E. Guild of the division office.

Hello, Central!

"Hello, there, central! Is this central? It is? I thought it was, but I couldn't be sure. The other day I supposed I was talking to central and here it was only my grocer. I do think there are some queer mix-ups in the telephone service. What I want now is to find out the number of a Mrs. John Smith, S-m-i-t-h, Smith. I find that there are more than 100 persons of that name in the book, and I don't know which one is the husband of the lady I want. She is a large lady with a florid face, and prematurely white hair, and I think her husband is a traveling man, and a brother-in-law of her's named Jones lives somewhere on M street, a stoutish, elderly gentleman with side whiskers.

"Now, kindly let me have Mrs. Smith's number at once. I have it on a slip of paper that I can't find. Seems to me it was two four-sixteen ring three, or ninety-two-sixty-four ring two. You know how confusing telephone numbers are. Let me have Mrs. Smith's number right away please."—Puck's Quarterly.

Quick Action of Linemen

Chicago telephone repairmen were at work on lines near 429 West One Hundred and Second place, Chicago, on November 7th, when they heard Mrs. D. F. Duffy, who lives at that address call "Fire" from a window of her home. The men immediately cut into a circuit with a test set and called the fire department, which arrived in a few minutes and extinguished the blaze.

New Building for Pittsburgh

The Central District (Bell) Telephone Company will erect a ten-story building on Seventh avenue, Pittsburgh, early next year. It will cost \$1,000,000.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

The Christmas Spirit and Universal Service

December is much like one of those ingenious electric signs which flash out a word to replace it at once with another. We read December but on our mind flashes at once Christmas. To the child it gleams with the twinkling lights of Christmas trees and the mystery of Santa Claus. To us older children it means gladness and if it also means a month of hard work, we still love it, for there is a fascination about the Christmas time that no other holiday brings.

The picture we have chosen for our Christmas message is called "The Angelic Ambassador" and we can imagine that the words which would come from the lips of the beautiful spirit would be "Peace on Earth, Good Will to Men." It is an embodiment in a lovely picture of what the Christmas Spirit should bring to us all—a high purpose to make peace and good will speak in our own lives.

Perhaps you girls who meet the busy traffic at the switchboards may not realize what an opportunity you have to carry the message of good cheer along.

For weeks in the department stores and in the mail order houses, preparations have been made to meet the increased calls of patrons. Forces have been enlarged and every effort has been made to systematize the work so that it shall meet the heavy demands with as little waste of energy and with as little wear and tear on the employees as possible.

But however well arranged, this is bound to be a busy month and in the telephone operating rooms as well as in the stores the calls will come thick and fast.

Why not make your work a part of your Christmas joy by realizing that you can embody the Christmas spirit every time you cheerfully respond "Number, please?"

The Christmas Spirit is good will, or willing good to all mankind. You girls hold within your hands the magic instrument for making thousands happy, though their faces you may never see. Each day you may make a splendid contribution to the peace on

earth which Christmas ought to bring.

Do you ever stop to think that you are doing more than making connections of electric currents when you put the plug in the jack? In that act you bring people together, and if you would enjoy your work and do it well you must feel the human part you play in the bustle of the Christmas month. You won't be half as tired if you come each day to your exchange with gladness because you can serve. It is so much more interesting to work when you know it is worth while. The money you earn is necessary, but the spirit you cultivate is worth much more. And this is not mere sentiment,

Of course the girl at the board doesn't see the customer she serves, and the girl at the B board doesn't even hear the voice, but you can all play that you are Santa Claus, quite invisible, but dispensing gifts in a magic way and bringing joy to thousands who may not even believe in him. So feel the power that lies in that magic wand you handle and when, with a touch, you bring together the people who wish to meet, be happy and count it a privilege, not a tiresome duty, and as you get the real Christmas Spirit of giving yourself to others, you will find you are not getting physically so tired, for the more you give of peace and good will, the more peace comes back to you.

And so a Merry Christmas to you all, dear girls, who are patiently and out of sight, day and night bringing messages of peace and good will. The greatest forces in life, like faith and love, are unseen, but they are the most real of all things and they will not be forgotten, and your work is more and more appreciated and recognized in this Universal Service which has bound the world with its magic bands.

Modest

A manager in Wisconsin reports the following conversation between his office and a subscriber:

Clerk: "Is this Mr. Blank? This is the Wisconsin Telephone Company. We are getting out a new directory and would like to know just how you wish to be listed?"

Mr. Blank: "No, I don't think I want to be in."

Clerk: "You don't understand; I mean we are getting out a directory, a telephone book, and want to know how you want your name in it."

Mr. Blank: "Well, how much does it cost?"

Clerk: "There is no charge."

Mr. Blank: "Oh, then I would like to be in."

Clerk: "Then how would you like to be listed?"

Mr. Blank: "I will write up something and bring it over."

Clerk: "That is not necessary; just tell me now and I will take care of it."

Mr. Blank: "Well, just put in 'Modern Hotel—Mr. Blank proprietor. Rates \$1.50 per day; stable in connection!'"



"THE ANGELIC AMBASSADOR."

From a painting by Simeon Solomon, an English artist, who died in 1905. His pictures were poetic and spiritual. The Boston Art Museum is said to have offered \$25,000 for one of his paintings.

it is good common sense. Doctors are telling us that the will power and the cheerful frame of mind do more towards curing the sick than medicine, and that health depends largely on the attitude of mind.

We may look at work as drudgery and come to it each day with unwilling steps, and just because we are unwilling we shall not extend the Christmas good will which the Angelic Ambassador would have us express; but with a will to give good service and with our imagination aroused to the splendid opportunity before us to help in the Christmas preparations which make the traffic heavy, we may feel the satisfaction at the end of the day more real than fatigue.

I like the spirit of a sales girl who said "I hate to have women asking me if I am tired and sympathizing with me in this rush time. I just love Christmas and like to get tired helping it along."

"Information's" Mother Helps Out

An information operator at the Milwaukee Grand office was asked by one of her subscribers if she knew how to make grape wine.

The lady asking for this information was greatly excited as she had a large quantity of grapes on hand and did not want to have them go to waste.

As the information operator had had no experience in making grape wine she called up her mother and told her of the predicament this subscriber was in and her mother, after being connected with the lady, gave detailed instructions as to the preparation of the wine.

Exchange of Exchanges

Ypsilanti, Mich.:

Subscriber—"I want 1253-J, Ann Arbor."

Operator—"What is your number, please?"

Subscriber (whose number is 1145)—"Quarter to twelve."

Springfield, Ill.:

An operator answered a call from a patron by the usual expression:

"Number, please."

"Give me double two, please," said the subscriber.

"Two two?" repeated the operator.

"Yes," said the subscriber, "but I haven't time to play train with you just now."

Port Huron, Mich.

A subscriber called the information operator and asked: "Say, Information,



NOT SO BAD, AFTER ALL.

The Girls in this group were "marooned" in one of the Cleveland Exchanges during the snowstorm.

there's a tall lady with blond hair and she has two children that lives somewhere on Military street. Do you know what her telephone number is?

Of course Information knew.

Jackson, Mich.

A Jackson subscriber reported trouble thus: "Tell the trouble man I can't get either in or out of my telephone."

A Jackson subscriber calling for the manager said, "Can I be connected with the man of the house?"

A Jackson subscriber reporting his telephone which had been out of order a few days was told by the information operator that his trouble might be chronic. He then stated, "You can give it a tonic or anything else you want to, as long as you get it fixed."

Waukegan, Ill.—

Operator: "Number, please?"

Subscriber: "Say, Central, please vill you sent some von to feex my telephone? It don't lissen veel."

Subscriber: "Operator, I wish you would send some one over to fix this telephone. It hasn't any top, it hasn't any bottom, it hasn't any sides (laughing), but outside of that it is a pretty good little instrument." The repair man reported a broken receiver.

Highland Park, Ill.—

Subscriber: "Central, please give me Mrs. _____ number?"

Operator: "Please refer to your directory."

Subscriber: "But, please Mrs. Central, I have delayed my book."

Handling Complaints in Germany

"The telephone service in Dresden had been unspeakably bad for some time," said a returned globe trotter recently, "and everybody grumbled gutturally. Whereat the government became angered and declared that if the grumbling didn't stop, the subscribers—all of them—would be cut off for one year.

"Whereupon the grumbling stopped, and the service continued—bad."

Overheard in Detroit

Lady: "I want a four-party line put in my house."

Counter Man: "Yes, Madam; what is the address?"

"Now, just a minute, Mister; can I have some of the names of my roomers put in without any extra charge?"

"Is this a rooming house?"

"Yes; I have thirty-eight roomers."

"Madam, you don't want a four-party line. What you want is a private branch exchange."



ZELMA HUGHES.

What proved to be a very interesting popularity contest came to a close Tuesday, October 20th, when Zelma Hughes, local operator at Lewistown, Ill., was chosen queen of the first Annual Home Carnival of that city.

There were thirteen young ladies who entered the contest, some of whom gave Miss Hughes a hard battle for first place. However, she was chosen queen by a majority of over 4,000 votes.

Miss Hughes is very popular among the Lewistown young people, being an accomplished musician and possessed of a beautiful voice, and she has also endeared herself to the Lewistown subscribers by her pleasing conduct at the switchboard. Her friends took advantage of this opportunity to show their appreciation.



HELEN BRINDLEY.

Helen Brindley, an operator at the Otsego exchange, received the singular honor of being elected Queen of the Home Coming Carnival October 8th. This contest was keenly fought until the last day, when Miss Brindley ran away from the remaining contestants, finishing with 9,954 votes to her credit. Her nearest competitor had only 4,004 votes. A fifty-dollar diamond ring went with the election.

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Meeting of Chicago Chief Operators

During the month of November, Traffic Superintendent H. N. Foster in order to meet his traffic executives, gave a series of luncheons at the La Salle Hotel to which were invited the district traffic chiefs, managers and chief operators, day, evening and night, of the Chicago city offices. In order that the meetings might be social and not too large for an informal discussion of matters pertaining to the traffic work, the divisions were entertained separately on consecutive Thursdays, the South division meeting first on Thursday, November 6th.

The tables were in the form of a horse shoe, thus giving an opportunity for a conference at the close of the social hour at the luncheon. A number of representatives from the general office were also present and questions of interest to both the managers and the forces were fully discussed. The social luncheon created an atmosphere of freedom and Mr. Foster urged the utmost frankness in "knocking" in a friendly way anything that was not working out well in the exchanges. The occasions have been thoroughly enjoyed by the various divisions and the fine spirit of cooperation which has developed in the meetings has made them seem well worth while.

Good Fellowship Party at Wentworth

Miss Rogers, chief operator at Wentworth, gave a delightful party Friday, November 21st, from 4 to 6 in the rest room at Wentworth exchange. Every girl on the day force accepted the invitation with the exception of a few who were detained by illness, 156 being present. The long table was prettily decorated with yellow chrysanthemums and ferns and around the room in triple rows were seated the company of operators whose happy faces made a beautiful picture. It was really a moving picture, for as the guests entered they were greeted with most enthusiastic hand-clapping and throughout the party the laughter and witty remarks showed

a comradeship and freedom that was most delightful. Mr. Forbes and Mr. Bell were the occasion for much fun, as they helped serve refreshments and entered fully into the spirit of the occasion.

Mr. Foster, Mr. Cooper, Mr. Sherwood, Mrs. Hyatt and Mrs. Dewhurst were guests. Mr. Foster, Mr. Cooper and Mrs. Hyatt were called up for speeches, which were delightfully informal and enthusiastically received. The afternoon was fine in its real get-together spirit and Mrs. Rogers is to be highly congratulated on the splendid feeling of cooperation which exists between her and her girls.

Death of Charles H. Hogle

Charles H. Hogle, field engineer in the Illinois Division, died unexpectedly Tuesday night, November 4th, after a short illness resulting from gastro-enteritis and nephritis.

He was born at Indianapolis, Indiana, November 8, 1891, and after graduating from the Indianapolis Manual Training High School in February, 1910, entered the employ of the Central Union Telephone Company as draftsman. Upon the reorganization of the company in January, 1911, he was transferred to the Illinois Division at Springfield as chief draftsman for the plant engineering department. In October, 1912, when the Illinois Division office was moved to Chicago, he was transferred to the state engineering Department as field engineer, which position he occupied at the time of his death.

On account of his engaging personality and fine character his loss will be felt very keenly by his friends in the telephone field.

Humboldt Party

Humboldt rest room presented a gay appearance Tuesday, October 28th, when black cats, witches, broomsticks and pumpkin color decorations adorned the walls and tables. It was near enough Hallowe'en to add this touch to a prize luncheon which all the force enjoyed in relays at their luncheon hour.

The picture, which was not a successful one, only gives a faint idea of the occasion.

Mrs. Regan was a guest of honor, whom the force greeted with especial enthusiasm, as she was so long identified with Humboldt and so greatly loved.

Mr. Foster, Mr. Cooper, Mr. Bradshaw, Mrs. Hyatt and other guests from the general office were delightfully entertained by the Humboldt force.

Enthusiasm ran high and some of the young ladies recalled the fact that Humboldt was first to win the prize on evening service, and that the office had won seventeen prizes since the exchange opened in 1905.

Weddings

Sadie McDonald, who for ten years has been connected with Toll, was married Tuesday, November 11th to Matthew Schoettes at St. Theresa's Church.

Mae Doody of Toll was married to Peter Simon Wednesday, November 5th, at All Saints Church.

Elizabeth McMahon of Toll was married Wednesday, November 19th, to Hugh Prendergast at St. Ann's Church. Mr. and Mrs. Prendergast will be at home after December 1st at 6935 South State street.

Gertrude Bartels, evening toll operator, was married to Frank Schoefer at St. Peter's German Lutheran Church November 19th at eight o'clock. Mr. and Mrs. Schoefer will be at home after December 1st at 1156 West Sixty-fifth street.

Annual Evening at Art Institute

The Chicago Telephone Company has engaged the Art Institute with Fullerton Hall for Thursday evening, December 18th, for a Christmas entertainment and a visit to the exhibition of American artists.

The Nativity pictures of the great masters will be shown on the screen in Fullerton Hall and carols and other Christmas music will be sung by a chorus, assisted by the Arcadian Quartette. All of the employees of the company are cordially invited to attend.

Personals

Joseph A. Parrish, recently of the auditor of disbursements' office, has accepted a position with the New Home Telephone Company, a connecting company at Linton, Ind.

L. W. Richardson of the maintenance department has been seriously ill for several weeks but is now improving.



PRIZE LUNCHEON AT HUMBOLDT.

Illinois Division

**A. J. Parsons, Correspondent,
Springfield**

Illinois Division Offices

Estelle M. Meadows, clerk in the commercial superintendent's office at Springfield, has been transferred to Alton as chief clerk to the district commercial manager. R. C. Rottger succeeds Miss Meadows as clerk in the commercial superintendent's office.

Alton District

The plant department has connected the private branch exchange for the new Alton Steel Company. This contract calls for a No. 101 switchboard, two trunk lines and seven-teen stations.

The plant department installed a private branch exchange for the Illinois Glass Company in the company's new Alton office building, which was completed and opened October 25th. Trunks and stations in all departments were installed.

Construction Foreman D. J. White has been busy recently completing the talking circuit for the Stone Webster Company. This is a leased talking circuit from Keokuk, Ia., to St. Louis, Mo., with drops at Hull and Meppen. Meppen is in the southern part of Calhoun County and is tributary to Alton. The work on this end of the line being from Meppen through Hardin to Jerseyville; Jerseyville through Alton to St. Louis. This work was completed about November 12th.

The operators of the Alton exchange and their friends surprised Margaret Slaven at her home on the evening of October 31st with a masquerade party. Miss Slaven proved a very clever hostess even when taken by surprise and succeeded in seeing that each of her guests enjoyed a very pleasant evening.

Champaign District

Nellie Bonebrake, toll operator at Champaign, has resigned and is succeeded by Miss J. Lewis of the local department.

Misses Gardke, McClain and Walls have returned from their vacations and the Champaign local force is back to its original line up.

Miss D. Stone, pay station attendant at Champaign, has resigned and is succeeded by Miss J. Moorhouse. Miss Moorhouse's place at the local board is taken by Miss Johnson.

I. I. Andrews, formerly service inspector for the Peoria district, has been appointed traffic chief for the Champaign exchange.

Material is on the ground for the rebuilding of the Champaign-Tuscola toll line from Tolono Junction south to Tuscola. Work will begin at once.

Loyde Bogan has taken the position of collector at the Champaign exchange succeeding L. K. Cecil, resigned.

Decatur District

Rose Willis resigned her position as toll operator October 15th and is succeeded by Oma Clark. Miss Willis goes to Milwaukee, Wis., to become a Sister of Charity.

A twenty-year franchise was granted the Central Union Telephone Company at the city election October 28th.

Elva Weaver, local operator at Decatur, resigned her position October 15th and was succeeded by Lucille Wilbern.

Galesburg District

Edna Stansberry has returned from Quincy, Ill., where she has been assisting in the work as toll operator.

C. A. Dunn, cableman, and G. C. Irwin, assistant, at Galesburg, have resigned their positions and are succeeded by F. E. Aldrich and C. W. Yeaman, of Kankakee.

Marjorie McCreary has been transferred from pay station attendant to local operator at Galesburg.

A new No. 105 switchboard and some new furniture have just been installed in the office at Bushnell, Ill., and together with a general renovating has given the office a very neat appearance.

The Galesburg Central Union girls and some men friends attended a Halloween party given at the home of Ollie Kinsel. The rooms were decorated in the usual fall colors suitable to the occasion. The evening was spent in music and games, after which dainty refreshments were served. Miss Woolard and Miss Frank of Rock Island were among the out-of-town guests.

Jacksonville District

Frances Tobin, local operator at Jacksonville, has resigned and was married on October 18th to Howard Denny, of Virginia. They will make their home in Virginia.

Lillie Vasconcellos, toll operator at Jacksonville, has returned after three months' vacation in California.

A No. 2 private branch exchange consisting of one trunk and six stations has been installed for the Illinois Steel Bridge Company, Jacksonville.

Contracts have been secured from the First State Bank at Beardstown for a No. 1 private branch exchange consisting of one trunk and six stations.

Kankakee District

Foreman Hayes has completed rebuilding toll lines between Donovan and Sheldon, also toll lines between Watseka and Milford, replacing all iron circuits with copper circuits.

An estimate repairing toll lines between Gilman and Paxton, re-routing and changing iron circuits to copper circuits, was started about November 16th under Foreman John Prout.

On October 31st, Halloween, the young lady operators and clerks at the Kankakee exchange gave a most delightful party. The young ladies enjoyed the evening to the fullest and feel very grateful to the company for the privilege of using the rest room. Owing to the absence of the young men employees of the exchange, some of the young ladies borrowed their big brothers' Sunday suits. Thus "couples" were present.

La Salle District

The La Salle operators gave a dance on the night of October 29th at the Music Hall at La Salle. Over 300 couples were in the grand march, when dancing started at 9:30.

The operators certainly showed their loyalty to the telephone company. The hall was decorated with blue bells and other signs pertaining to telephony. Located on a stand made for the purpose, in the forward part of the hall, instruments of each style in use were on exhibition. At 11 p. m. the blue bell dance was called. A large calcium light was arranged to cast its rays on a given spot, where a large blue bell was located, the balance of the lights in the hall being extinguished. The dancers danced about this bell. Souvenirs of small blue bells were then given to each member present.

Elizabeth Fitzgerald has been promoted from night chief operator at La Salle to traffic chief, filling the vacancy made by the resignation of Clara Leonard. Agnes Kashinsky, supervisor, is promoted to night chief operator. Zeta Keys is promoted from toll operator to supervisor. Julia Travis is employed as local operator.

Gertrude Gannon has been promoted from clerk to stenographer in the commercial department. Cathleen Fettig has been employed as clerk.

Paris District

Oakie Beam, clerk of the commercial department, and Maude Beam, chief operator at Paris, who have been with the company for seven years, resigned their positions and left November 1st for Los Angeles, Cal., where they will make their permanent home. Miss Beam is succeeded by Ruth Woodbridge and Jesse Albin, local operator, was appointed to fill the chief operator's position.

Barbara Vickrey, of Kansas, Ill., resigned her position to be married to Otis Berry.

OFFICERS		MEMBERS OF RETAIL MERCHANTS ASSOCIATION OF ILLINOIS		COMMITTEES	
EDGAR SHRAEDER, PRESIDENT JOHN P. CODDINGTON, ST. V. P. ROBERT McPHERSON, 2ND V. P. C. A. BITCHIE, TREASURER E. M. C. ZENO, J. RIVES, ATTY. T. E. RICHARDS, COLLECTOR		Litchfield Merchants' Protective Association INCORPORATED REGULAR MEETINGS SECOND TUESDAY EVENING IN EACH MONTH ALL CLASSES OF BUSINESS MEN HOLD MEMBERSHIP		ORGANIZATION AND MEMBERSHIP DR. J. B. LEE, MANAGER J. L. L. LUTHER PROGRESS AND ENTERTAINMENT J. C. STAIN, J. D. TAYLOR N. K. LUTHER CREDIT AND RATING M. L. LUTHER LAWS AND ORDINANCES JOHN A. MEYER, J. L. TAYLOR ARTHUR LUTHER ADVERTISING (SECRET) INDUSTRIES HARRY WHITE, L. W. CLINE, WM. SCHULTZ (FURNITURE MERCHANTS AND PEDDLERS) JOHN BARTLETT, WM. E. BRAY, B. R. MEEL GOOD ROADS AND STREETS DON COFFELLO, G. E. TETTER S. E. BLAIR	
DIRECTORS J. C. STREIBER, CHAIRMAN WM. F. BRELL S. F. CHAPMAN DR. J. B. LEE CHAS. PRUYNE, JR.		PHONE 4400 OR 4420 OFFICE OF SECRETARY 3 404 MARION BLOCK LITCHFIELD, ILL.			
<p>WHEREAS, The Litchfield Telephone Company has installed one of the best and most up-to-date telephone systems that can be procured in the present day, and</p> <p>WHEREAS, the service at the present time is as perfect as can be furnished, it is hereby</p> <p>RESOLVED, that the Litchfield Merchants' Association congratulate the Litchfield Telephone Company upon the installation of such a plant, and assure them that the members, to whom this means a great deal, appreciate it, also the good and efficient service rendered by their courteous assistants.</p> <p>The above resolution was unanimously adopted at a meeting of the Association held on Tuesday evening, February 11th, 1913.</p> <p>Yours very truly,</p> <p>LITCHFIELD MERCHANTS' PRO. ASSN.,</p> <p>By <i>J. C. Streiber</i> Exec. Sec'y.</p>					

A SOLID TRIBUTE.

Resolution commending the service of the Litchfield (connecting) Telephone Company, Litchfield, Ill.

Ruth Moody has been appointed to fill the vacancy.

Peoria District

Contracts have been secured from the Peoria & Pekin Union Railway Company at Peoria, Illinois, covering a No. 4 private branch exchange consisting of five trunks, one switchboard and sixty sub-stations. The Peoria & Pekin Railway Company handles all of the terminal railroad facilities in Peoria and this installation will furnish service in various offices and departments.

James Nolan, collector at Peoria, has resigned and is succeeded by Clinton F. Wilsey.

M. H. DeVore has resigned from the collection department at Peoria and is succeeded by John A. Scoville.

A. L. Simms, foreman at Peoria, has resigned and is succeeded by Carl Redding.

Quincy District

District Plant Chief Ed. Flowers has gone on a tour of the Central Union exchanges on business and pleasure combined, incidentally to see if his fellow plant chiefs can show him anything new in methods of plant maintenance; also to rest up from the hard work of maintaining service during the consolidation of the two exchanges. Mr. Bybee of Indianapolis has taken charge of the plant and is acting in the capacity of district plant chief during the absence of Mr. Flowers.

Chief Operator Miss Mitchell has been visiting Galesburg, Rock Island, Rockford, Chicago, Peoria and other exchanges trying to pick up something new in the way of traffic methods, and is also resting up after the hard work occasioned by the cut-over. She is expected to come back full of new ideas to give the Quincy subscribers the benefit of her own and other chiefs' experience.

The Western Electric Company has just installed a new service observation board for the Quincy exchange which is the first of its kind in the Central Union territory in Illinois. The Quincy exchange has recovered from the effects of the cut-over and is now giving excellent service to its 5,500 subscribers.

Rockford District

Contracts have been secured from Dr. P. L. Markley, 601 Trust building, Rockford, for a No. 2 private branch exchange, to consist of one trunk line and five sub-stations. Contracts were written by Commercial Agent John Watts.

A glee club has been organized from members of the "Blue Bell" club and has a membership of about thirty. The club is studying under the direction of Axel W. Titus, one of Rockford's leading professors, and indications point to a very successful future. The girls are being given much encouragement and it is hoped that interest will continue unabated.

Members of the "Blue Bell" club entertained at a dress ball in the operators' retiring room Halloween. Games and music furnished the diversion of the evening and later refreshments were served. The evening was thoroughly enjoyable.

Eighteen operators formed a party and surprised Hazel Marston, local supervisor, at her home, in celebration of her birthday.

Foreman Winters has completed the stringing of two additional circuits from DeKalb to the line boundaries of Maple Park and the rearranging of the toll line route through the city of DeKalb. He has also completed the estimate covering the rebuilding and repairing of the Dixon-Mendota La Salle route and has transferred his two large gangs of men to Mattoon to commence work on estimates in that section.

H. C. Ragsdale, installer No. 1, has been transferred from installer to lineman at Rockford. Everett Barker, who has been on the temporary pay-roll, has been assigned to a position as regular installer. George C. Andrews has taken the position of assistant switchboard man. John Bertrand has been promoted from lineman to foreman of order wagon. Orle E. Addington has been promoted from lineman to foreman of order wagon. H. Santos has been transferred from the temporary pay roll to the regular pay roll. H. C. Ludlum has taken a position as toll repairman of the Rockford exchange territory. John E. Gibboney has been transferred from the temporary payroll to regular repairman. George Elmer has taken a position as frameman at the Rockford exchange. Raymond O. Hayer has been promoted from assistant switchboard man to testman at Rockford. H. D. Cahoon has been transferred from the temporary payroll to regular position as installer at Rockford exchange. Harry Fuller has accepted a position as stockman.

Lloyd Roche of the construction department at Rockford has recently achieved quite a name for himself in the realm of sports. By defeating all of his opponents in two successive matches he has won the undisputed title of "Amateur Golf Champion of Rockford." In the first match 200 competitors

started, all of whom were scratch men. The second match was a handicap, Mr. Roche being the lowest. In spite of this he won out in the finals and is now the proud possessor of two cups and a gold medal. Mr. Roche is a steady and tactful player and his many friends predict a bright future for him in golf.

Rock Island District

A private branch exchange with one trunk and sixty-four stations has been installed in the Colonial Hotel, Rock Island.

Contracts have been secured for a private branch exchange of two trunks and seventy-five stations to be installed in the new Rock Island House.

A. B. Eddy, former chief clerk to District Plant Chief E. L. Mitchell, has been transferred to the commercial department at Rock Island, succeeding O. E. Carrol.

Freda Klockau has accepted a position as clerk in the commercial offices at Rock Island.

On November 1st Mr. Beverlin, district commercial manager, and Mr. Barlow, district traffic chief, attended a picnic and smoker tendered Fred Cleaver by the employees of the Iowa Telephone Company. Mr. Cleaver was formerly district commercial manager of the Iowa Telephone Company at Davenport, but recently resigned to take the position of traffic superintendent of the Iowa Telephone Company. Mr. Cleaver has made many warm friends among the employees of the Central Union Company in the Tri-Cities, who are sorry to hear of his leaving Davenport, but rejoice in his promotion.

Miss McIlvaine, chief operator at Rock Island, was recently a guest of the Home Mutual Telephone Company at Aledo, Ill.

Miss Mitchell, chief operator at Quincy, visited in the Tri-Cities on November 1st and 2d. She was the guest of Miss McIlvaine and Miss Swanson, chief operators at Rock Island and Moline.

Herbert L. Miller, of Galesburg, has been assigned duties in the district traffic chief's office. The employees are especially glad to see "Herb," as he will prove a valuable addition to the baseball and athletic teams when they take the Iowa Company to their annual "cleaning" next summer.

A. N. Mosier of the equipment department is in Rock Island installing an additional section of No. 21 toll board.

Austin Seguin, former traffic chief at Rock Island, has been transferred to Quincy. Mr. Seguin has hosts of friends in the Tri-Cities who regret to see him go.

Springfield District

Mary Foster, local operator at Springfield, resigned October 31st on account of leaving the city. She will make her future home in Cantrill, Ill.

Teresa Crowley has been transferred from pay station attendant to information operator at Springfield. She is succeeded by Ida Kunkle, former local operator.

The toll girls entertained a large number of their friends at a Halloween party, Thursday evening, October 31st, at the home of Katherine Jacoby, 1509 E. Jackson street, Springfield. Miss Jacoby's home was artistically decorated in orange and black. Pumpkins, black cats, corn stalks, and many other objects suggestive of the season were used throughout the various rooms. Many grotesque costumes were presented. The evening was pleasantly spent in various games. At a late hour refreshments were served.

Mildred Bay, toll operator at Springfield, has returned from a two weeks' leave of absence, which she spent in Rock Island and Chicago.

Frank Mann, repairman at Buffalo, has resigned and is succeeded by Frank Baker.

W. T. Winters, repairman at Chatham, has resigned and is succeeded by Paul Blifneck.

Indiana Division

D. H. Whitham, Correspondent Indianapolis

Central District

A large number of Indianapolis traffic employees attended a theater party at the Murat Theater to see "Little Miss Brown" on October 27th.

The marriage of Ethel Strain, clerk at the Prospect office, Indianapolis, to Joe Johnson took place the latter part of October. The girls of the Prospect office gave a shower for Mrs. Johnson November 12th. She was the recipient of many useful gifts.

Fleetie Jones will succeed Ethel Strain as repair clerk at the Prospect office, Indianapolis.

The marriage of Marle Hurst, Indianapolis toll operator, to Carl Brewer, which occurred in October, was kept a secret about a month

and finally leaked out. Mrs. Brewer is still holding her position in the toll room.

The chief operator of the A. T. & T. Co., assisted by the employees in her department, entertained Misses Cooper, Brethauer, Shea, and Newnam, at dinner the evening of November 14th at the office at Thirtieth and New Jersey streets, Indianapolis.

Mattie Harms, chief operator of the Terre Haute office, and Grace Smith, supervisor, were guests of the traffic department at Indianapolis, October 28th and 29th. A dinner at the Severin Hotel and a theater party at Keith's were given in their honor.

Louise Coull, supervisor of the North office, Indianapolis, entertained a number of the operators and supervisors at her home with a Halloween party.

Zilla Rose of the North office has been promoted from operator to assistant clerk.

Hazel Nickum, repair clerk at the North office, resigned and was succeeded by May Sherman.

Esther Davis entertained the members of the I. W. C. Club and friends at her home October 29th with a Halloween party. The evening was pleasantly spent with dancing and games.

The I. W. C. Club gave a masquerade dance on the evening of October 31st at the P. H. C. hall.

Ruby Kroesen, supervisor at the Main office, has been transferred to the Broad Ripple office.

Helen Corydon, local operator at the Main office, has been promoted to the position of supervisor, succeeding Ruby Kroesen.

On Wednesday evening, October 22nd, the first division in the Main office held a business meeting on the roof garden, followed by dancing. Refreshments were served and a very enjoyable as well as a profitable evening was spent.

Northern District

The United Telephone Company is making extensive improvements at Monticler.

Manager Van Hood of the Carthage Telephone Company with Mrs. Van Hood and two of the Carthage operators, Florence Miner and Mary Gates, motored to New Castle and spent the afternoon visiting the Central Union exchange.

Fifty Peru operators spent Halloween at the country home of Oscar Maus, three miles north of Mexico. The trip was made by auto truck and hay wagon. The evening was spent in dancing and card and other games.

The good work done by Foreman De Vore in trimming trees as they should be trimmed is having good results. The local force at Auburn has secured permission to trim trees which heretofore the owners had refused to allow to be touched.

Marguerite Snowberger, local operator at Auburn, has returned to duty after an absence of two weeks on account of illness.

Bertha Cramer, toll operator at Auburn, has resigned. Agnes Hinsey has been employed as local operator.

R. R. Simons, chief inspector at Auburn, has returned from a week's vacation in Fort Wayne and other cities.

Rita Wagner, operator at Kendallville, has resigned and is succeeded by Edith Rauh.

Claud Berger, lineman at Kendallville, has resigned to accept a position with the Home Telephone Company at La Grange, Ind. The vacancy is filled by H. G. Brinley, lineman at Alexandria. Mr. Brinley is succeeded at Alexandria by G. Sparks, formerly of Greensburg, Ind.

Marguerite Wharton, toll operator at Alexandria, has resumed her work after a month's absence on account of illness.

Leah McCullough, chief operator at Elwood, has returned from a pleasant two weeks' vacation, which closes the vacations in that department.

Edith Abbott on August 18th changed her name to Mrs. Clarence Brown, which was foretold by the beautiful diamond ring she has been wearing for the past few months. Mrs. Brown was collector for more than two years, and the many kindly expressions given by subscribers when asked to call August 1st at the office to make payment showed how well she was liked.

Florence H. Bradley succeeds Mrs. Brown as ticket clerk at Elwood. Miss Bradley was formerly bookkeeper for Chas. F. Wiley & Company.

Susie John, night chief operator at the Delaware and Madison office at Elwood, has been changed to the day force. Viola Culp is promoted to night chief operator.

Fifteen young ladies of the commercial and traffic departments in New Castle gave a theater party October 24th in honor of Misses Delph, Nelson, Tucker, Knerr, Perry and Raesnor of the Indianapolis office. After attending the Grand and seeing the strong man they took in the remaining sights of the town, including the movies and the police station.

Nellie Footit has been transferred from Indianapolis to New Castle as toll operator.

John Shaw has been transferred from Elwood to New Castle.

Martha Moistner, local operator at New Castle, has been ill with nervous prostration. Misses Mary and Leona Garner of New Castle have resigned and will take a trip through the South. The places will be filled by Grace Brennehan and Olive Crider.

Nellie Anderson and John Gallagher of Muncie were married October 16th. Mrs. Gallagher will continue her work with the company. The supervisors entertained for Mrs. Gallagher and Mrs. Payne, who was also a bride of the month.

Vera Holman of Muncie resigned October 15th and was married to Erin Young.

Florence Matlock of Muncie resigned October 5th and will be married soon.

Helen Hartwick entertained a number of Central Union operators at her home in Peru November 5th.

Southern District

Employees of the Brooklyn exchange gave a Hallowe'en party in the rest room of the exchange, which was appropriately decorated with colored leaves and pumpkins. The evening was spent in games, contests and receiving callers, followed by refreshments, which consisted of pop corn, fruits of all kinds and sweet cider. The cider was served from a keg, which was covered with corn stalks, made to represent a shock of fodder. Many citizens of Brooklyn were present and all enjoyed a pleasant evening.

Daisy and Mabel Kindred of Bloomfield have taken positions as operators at Bloomington.

Marie Ostheimer, chief operator at Vincennes, Ind., left October 16th on her vacation. She spent the time at Terre Haute with relatives.

A Hallowe'en party was arranged by the traffic department at Vincennes on October 7th in honor of Anna Brown, information operator, who resigned October 5th. Laura Knauff, previously employed by the company, was a guest. Luncheon was served and a pleasant evening was spent in games and music.

Sunday, October 12th, a jolly bunch of operators with their chief operator took their dinner at the East Side Park, Washington. The day was pleasantly spent, a number of pictures being taken, and as a final touch to the happy day the operators attended the Washington-Linton baseball game at Woodlawn Park.

October 19th the Washington operators attended a surprise farewell party on Rore Clements, who is leaving for Indianapolis to make her home. The operators presented Miss Clements with a beautiful necklace.

Ohio Division

**B. T. Calaway, Correspondent,
Columbus**

Akron District

On account of increased business in Akron the Erie Railway Company has ordered its cordless board replaced with a manual thirty line board.

The Enterprise Manufacturing Company at Akron recently signed a private branch exchange contract for a manual board with twelve stations.

The Goodyear Tire and Rubber Company at Akron is contemplating an increase in trunk facilities to the Main exchange on account of increased business.

Lulu Rearick, toll operator at Akron, entertained about forty of the operators at her home at Cuyahoga Falls on Hallowe'en. The house decorations were in keeping with the occasion and a buffet luncheon was served. All attending report an enjoyable time.

C. B. Bowers, who has been chief clerk to Mr. Strauch, equipment foreman, at Akron, has recently been transferred to the Columbus office.

The Akron plant department is making a number of new installations at Cuyahoga Falls, at the same time repairing the open-wire lines.

Foreman L. W. Bailey has just completed an estimate providing cable for Canton, in order to take care of new business.

Contract for a No. 2 private branch exchange system, consisting of one trunk and six stations has been secured from the Gordon Rubber Company, Canton, Ohio.

Lella Joy, chief operator at Elyria, has resigned. It is rumored that wedding bells will be heard in the near future.

Walter R. Elson, commercial manager at Alliance, was married October 27th to Louise Graham of Ashtabula.

Chillicothe District

V. K. Curtis has been appointed manager at Circleville, succeeding R. L. Brehmer, who resigned to enter the automobile business.

The management of the Winchester exchange has been transferred to the jurisdiction of the Hillsboro exchange. J. A. Miller, manager at Winchester, becomes commercial manager at Hillsboro.

H. E. Conwell, commercial manager at Hillsboro, is transferred to Washington C. H. as commercial manager.

C. W. Heiskell, commercial manager at Washington C. H., becomes manager at Chillicothe, succeeding Lou A. Green, resigned.

Nell Flaherty, chief operator at Chillicothe exchange for the past four years, resigned November 1st to be married. She is succeeded by Cathryn Stocklin.

Agrippina Selpelt, a Bell operator at Ripley, Ohio, has won first prize, a \$350 piano; in a popularity voting contest which lasted from January 25th to August 30th, inclusive. There were seventeen contestants and Miss Selpelt won the handsome prize by about 400,000 plurality.

Columbus District

The North exchange building has been extended forty feet to take care of the growth.

The Western Electric Company has just completed work on additional multiple, answering jacks and new A section at the North exchange.

At the North exchange it has become quite a custom for the supervisors to hold meetings with their operators. The purpose of such meetings has been to discuss and plan how to give the best service. The girls have shown a great deal of interest and are very prompt with their many and varied suggestions. It is thought that this plan will be very helpful to the operators.

Virginia Gage, who has been supervisor for some time at North exchange, is now supervisor at Main exchange.

Mr. Haines, formerly wire chief at East exchange, now fills that position at North, which was vacated by Mr. Ebersold, transferred to Main as facility clerk.

On Hallowe'en a very unique party was enjoyed by the employees at the North exchange. It was the first of its kind ever at-



ELIZABETH McMULLEN AND ANNA SCHILLO.

At the North exchange Hallowe'en party at Columbus.

tempted by any exchange in Columbus and proved a great success, being attended with but few exceptions, by all whom the invitations included. The new part of the North building decorated with pumpkin heads, black cats, autumn leaves, corn stalks, and other Hallowe'en decorations served as a most appropriate place for the occasion. The room was beautifully lighted with jack o' lanterns. While the party was not altogether a masquerade affair, yet there were a great many clever masques which added to the scene and to the fun. There was a fortune teller's booth where real fortunes were told. Other diversions of the evening were singing, dancing and playing games. Music for the evening was furnished by Claude Milburn, piano, and Christopolus Scott, violin. As a fitting finishing touch refreshments were served consisting of ginger bread, doughnuts, pumpkin pie, apples and cider.

On Monday evening, September 29th, Anna Lex and Bertha Moore entertained with a linen shower in honor of Ruth Millrons, whose marriage to Nick Amerine took place at the Sacred Heart Rectory. After an extended wedding trip Mr. and Mrs. Amerine will make their home at 65 Warren street.

Silvia Thomas has been promoted to supervisor in the Main office succeeding Ruth Millrons.

Bertha Heise and Agnes Garrity, local operators at Main office, have returned to duty after two months' illness.

Jessie Carman has been promoted to information operator at Main.



OPERATORS OF CONNECTING COMPANIES AND CENTRAL UNION OPERATORS AT MEETING IN DAYTON, SEPTEMBER 27th.

The Anti-Slang League of the Bell Telephone Company at Columbus, received a letter of thanks for a liberal contribution to the Children's Hospital.

The following Private Branch Exchange Contracts were written during October: Moline Plow Company, No. 2 intercommunicating, one trunk, five stations; Columbus Malleable Iron Company, No. 2 intercommunicating, one trunk, five stations; Charles W. Levy, No. 2 intercommunicating, one trunk, five stations; Chamber of Commerce, No. 4 switchboard, two trunks, five stations; Atlas Brass Foundry, No. 2 intercommunicating, one trunk, four stations.

Just 699 contracts representing annual rental of \$15,292.20 were secured in Columbus during October. The net gain in telephones for the month was 248. Approximately thirteen per cent. of the orders-out in October were saved.

November 10th Columbus was visited by a blizzard, but in spite of the storm about 2,500 subscribers paid \$8,096.98 at the office.

Toledo District

Bessie McGranahan, clerk at Sandusky, resigned on account of ill health and is succeeded by Eleanor Daniel.

Ulah B. Price, clerk at Gallon, resigned and is succeeded by Elnora Bland.

Ruth E. Lucas, clerk at Fremont, resigned and is succeeded by Edna Stump.

Louise L. Myers, collector at Upper Sandusky, resigned and is succeeded by Gertrude Kinley.

A second carload of underground conduit and creosoted planks has been received at Findlay and the work of installing the underground system has been started and is in charge of Foreman Keethler's assistant, Mr. Bennett.

Nellie Palmer, toll operator at Findlay, resigned October 13th, and was married to Orren G. Neel of Columbus, Ohio.

Vera Nemire, night chief operator at Findlay, resigned on October 28th, and left the following day for her future home in Tulsa, Okla.

On October 29th Lulu Myers, traffic chief at Fostoria, was married to Anthony T. Hoffer of Toledo. After a short trip they will be at home to their friends at 1513 Forest avenue, Toledo. Miss Myers is succeeded by Margaret Morel.

On October 3rd P. E. Cowgill, traffic chief at Toledo, was married to Catherine Dean Allen of Troy, Ohio.

Cleveland Division.

W. K. Lawrence, Correspondent.

Cleveland "Hike" Parties

Tramp! Tramp! Tramp! the girls are marching! Yes, it was the girls this time—not the boys. Fifty of them from the East Side offices of the Cleveland Telephone Company.

Led by Miss Spencer, social secretary, this army of telephone operators invaded the beautiful suburb of Cleveland known as Shaker Lakes, on the afternoon of Wednesday, October 8th. The invasion was a peaceable one, however.

They obtained the good graces of a farmer who furnished them with a liberal supply of apples—they secured ice from a passing ice wagon—they explored the lakes, woods, ravines, they—well, what they didn't do wasn't worth doing and as twilight approached they returned to the city, invigorated by the afternoon jaunt and the bracing air, possibly a little tired, but with many pleasant memories to draw on in the future.

A week later the army of the "West" made up of operating employees from the West Side offices to the number of thirty hiked over hill and dale under the leadership of Miss Spencer.

This time the scene of action was in Lakewood on the Warner Road. A mysterious basket accompanied the hikers and in the middle of the afternoon the contents of this basket were found to be refreshments for the party. The empty basket was left on the field of carnage.

More "hikes" will undoubtedly be held in the future as the girls are of unanimous opinion that it is an excellent way of getting "Back to Nature."

Cleveland Telephone Building Haunted!

This heading might have appeared in the Cleveland papers if some enterprising reporter had happened in the vicinity of the



CLEVELAND "HIKERS."

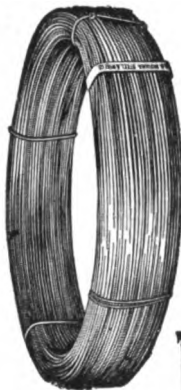
Cleveland Telephone Building on Hallowe'en and gazed through the front entrance. The ghosts, however, were "real girls" and were stationed in the lobby to greet each one of the 230 guests that attended the Cleveland Telephone Company's Hallowe'en party. Miss Spencer, social secretary, waved the magic wand that kept the ghosts, witches, fortune tellers and other "thrillers" moving throughout the evening, to the great delight of all.

Jack o' lanterns peering out from autumn leaves and winking coquettishly among the corn stalks added to the weird scene in the main dining room, which was trimmed with yellow and black festoons.

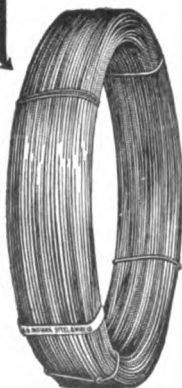
The fortune tellers' tent, presided over by Helen Koeth of North office and Miss Voverka of East office, gave everyone who entered its portals enough to think and worry about for some time to come. The fortunes that were told coupled with the doughnuts,

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.

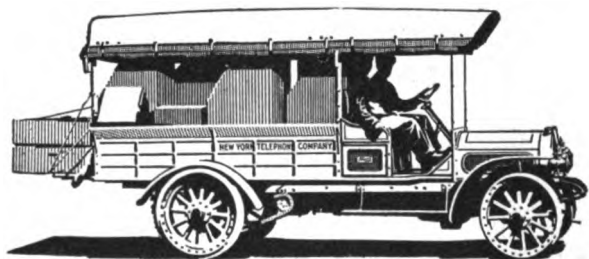


Write for FREE SAMPLE
Make Test and Comparison



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



The Bell Telephone Company's Philadelphia plant uses one of our 1½-ton trucks to supply stations within 25 miles.

The saving over express delivery is 74.3%.
The saving over freight delivery is 59.7%.

International Motor Trucks

Proved by Years of Successful Service

Mack 12 years in use **Saurer** 18 years in use **Hewitt** 10 years in use

The continued efficiency of our trucks in all kinds of service is proved by records repeated year after year during 10, 12 and 18 years of service.

We supply a proved truck for every service.

Nine sizes—capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½ and 10 tons.
Bodies for every transportation service.

Have you any delivery problems? We place 18 years' accumulated experience at your service without obligations.

International Motor Company

General Offices: Broadway and 57th Street
Works: Allentown, Pa.; Plainfield, N. J.

Branches and Service Stations in Chicago, Cleveland, Cincinnati, Kansas City—All Large Cities.



TELEPHONE OPERATORS

and Stenographers

Save Your Clothes

By wearing our new Ideal

Circular Skirt Apron

REASONS WHY

*Entire length covering skirt.
It fits perfectly in back, fasten-
ing down side as in illustration.*

Some day you will wear one,
why not now?

Made of good quality black

sateen. Any waist measure to order.

Stock sizes 22 to 30 in. for immediate delivery by Parcel Post,
75c prepaid, anywhere in U. S. or Canada.

Extra Offer—12 Carmen Hair Nets, 1 Circular Skirt Apron, for \$1.00.

MAIL YOUR ORDER TODAY

WANTED

Women Demonstrators in every office in Michigan, Wisconsin,
Indiana and Illinois, to take orders. Good money made during
spare hours. Write for sample enclosing price of apron.

CHAS. SCHIFF

423-25 W. 63rd St.

Chicago, Ill.

Mr. Manager!

How often — during 1913 — have
you been annoyed by service in-
terruptions?

How often have you found them
to result from the use of ineffi-
cient apparatus by connecting
companies?

Western Electric TELEPHONE APPARATUS and SUPPLIES

used throughout your territory
will reduce such interruptions to
a minimum and improve service.

You can bring about those better
conditions for your friends in
your territory and for yourself.

A few words from you will do it!

Western Electric Company

cider and apples which were served during
the evening no doubt brought on many bad
dreams later on in the night.

The program was very extensive and
ranged from a one-act playlet, "The Haunted
House," given by Miss Polcar, East office,
Mrs. Adair and Miss Hiller, contract depart-
ment, to "buck and wing" dancing by Miss
Kelly, East office, and Miss Relly, observing
department.

Every number on the program is worthy
of individual praise and so much talent was
brought to light that space will not permit
of justice being done to all.

Those who rendered piano solos, vocal se-
lections, took part in duets, etc., were the
Misses Zuelch, Grace Hiller, Polcar, Camp-
bell, Adair, Stead, Reeves, Menalaus, Prell,
Walters and Robinson. Ruth Hiller "made a

hit" as director of a musical chorus, and
dressed in male attire she swung the baton
with all the eccentricities of a Sousa.

A ribbon of identification was furnished
each one in attendance showing her office,
but there was really no "East" or "West,"
no "North" or "South" that night. It was
just one big happy family, and to use the
words of the country reporter "a good time
was had by all."

Personal

Mr. and Mrs. George A. Hull, 3217 West
Fourteenth street, entertained about twenty
couples at their home on Hallowe'en. It
was one of those good, old-fashioned parties
which everyone so enjoys. The festivities
opened with singing and dancing, with cider

and doughnuts (like mother used to make),
between dances. About eleven o'clock all
adjourned to the third floor where a lunch
was served among the cornstalks, pumpkins
and jack-o-lanterns. Such games as diving
for the apple, guessing the number of seeds
in a pumpkin and many others were en-
joyed. The only thing which happened to
mar the evening was when Charlie Byrnes
"kicked" on carrying home the twenty-five-
pound pumpkin which he won in the seed
guessing contest.

Charles Ellert, who was at home sick for
a week, is again back on the sales force. Mr.
Ellert is one of the "live wires" of the Cleve-
land commercial force. He works principally
among private branch exchange prospects
and his percentage of success in this line is
high.



A FEW WHO ATTENDED THE HALLOWE'EN PARTY AT MAIN OFFICE, CLEVELAND.

Wisconsin Division

F. M. McEniry, Correspondent,
Milwaukee

Cyclone at Mauston

A cyclone struck Mauston, Wis., Friday afternoon, October 10th, and, in addition to damaging almost every building in the town, overturned a mile and a half of toll line of the Wisconsin Telephone Company, and a half mile of the American Telephone and Telegraph Company's Chicago-Minneapolis lead.

Foreman Charles Clark and crew, consisting of J. Cronin, Jesse James, J. Beyler, Rollo Curry and C. Clark, started from Baraboo at 6 p. m. Friday, but did not reach Mauston until 4:30 in the morning, having to dodge trees and plow through mud. Communication was reopened Saturday.

The A. T. & T. poles fell across the railroad track and while they were down a fast train attempted to pass over them, with the result that sixteen cars were derailed.

Appleton District

Irma Damas, chief operator at Algoma, has resigned to accept a position at the Brey-Lieschow store. Ruth Fellows, toll operator at Algoma, succeeds Miss Damas.

John Loos has accepted the position of toll wire chief at Appleton.

Emil Krause, collector at Appleton, has been away on a week's vacation, spent at Milwaukee.

F. J. McCormick, former manager at Appleton, has been transferred to the engineering department at Milwaukee. He is succeeded at Appleton by D. E. Gaffney.

Ben Hanson and crew of the construction department have completed estimates at Berlin calling for additional outside plant facilities, and have gone to Beloit.

A. Winkelman and crew of installers are completing the installation of new subscribers' stations in connection with the new switchboard which was put in service on October 15th at Berlin.

Jean Mills, chief operator at Berlin for the past two years, was married to Frank F. Ustruck, Wednesday evening, October 22nd. They will reside at Berlin.

Mary De Junghe, chief operator at De Pere for the past two years, was married to Frank Deleye of Green Bay on October 8th. Mr. and Mrs. Deleye went to Chicago and Milwaukee on their wedding trip. They will make their home at De Pere.

Gus Rohlf, manager of the Eastern Fond du Lac County Telephone Company, which operates rural lines in the territory indicated and whose switchboard is located at Dotyville, sustained severe injuries on Friday, September 19th. He was struck in the face by a piece of metal from the broken fly wheel of a gasoline engine near which he was working. Mr. Rohlf was unconscious for three days, but he is now improving slowly. Mr. Rohlf is one of the original officers of the Eastern company and helped to build the first telephone lines in this territory. The company now operates about 200 miles of wire and has 243 rural subscribers connected.

Esther Sullivan, chief operator at Green Bay several years ago, is back again in that position.

Mrs. P. McFarland, local operator at Green Bay, has not been on duty for some time on account of poor health.

Meta Schmidt, who has been with the Western Union Telephone Company for some



SCENE IN MAUSTON, WIS., AFTER CYCLONE.

Note Cross-arms Hanging in Tree.

time, has returned to her former position as toll operator at Green Bay.

A kitchen shower was held at the home of Clara Marchant in honor of Louise Janssen, who was married in November. Miss Janssen is toll operator at the Green Bay exchange.

A novelty shower was given at Mary Nick's home in honor of K. Lindsley, toll operator at Green Bay, who was married early in November. A towel shower was held at the home of Rose Smitz in honor of Miss Lindsley.

Miss Baars, chief operator at Hortonville, spent her vacation at Watertown and Oshkosh.

A subscriber at Manitowoc asked one of the operators for the correct time. The operator said, "10:2." The subscriber waited, then finally said, "Well, ten to what?"

John Boreson, Morse operator at Neenah, enjoyed a week's vacation at Stevens Point during the month of October.

Evelyn Paulson has taken the position of night operator at the Neenah-Menasha exchange.

Emie Oakes, toll operator at Omro, enjoyed a week's vacation at Minneapolis.

Elizabeth Challenger, night operator at Omro, spent a week's vacation in St. Paul.

E. A. Shaw has accepted the position of repairman at Oshkosh, succeeding Otto Radig.

Ruth Whitely, operator at Oshkosh is recovering from an attack of typhoid fever.

Katherine Toseland, local operator at the Sturgeon Bay exchange for a number of years, was married on September 23rd to Henry Hall of Sturgeon Bay. Mr. and Mrs. Hall will make their home at Sawyer, Wis.

Cecelia Bourgeois, local operator at Sturgeon Bay, has returned after having enjoyed a week's vacation.

Eau Claire District

Emma Peterson, chief clerk at Menomonie, enjoyed a two weeks' vacation.

The traffic department at Menomonie celebrated Hallowe'en by having a spread in the manager's office. Games were played and prizes were won by Mabel Giese, Alma Retelstorf, Emma Peterson and Martha Hanson.

District Plant Chief E. P. Gray of the Eau Claire district has been transferred to Racine. J. V. Young, district service inspector, has been appointed district wire chief of the Eau Claire District in addition to his duties as service inspector.

Leo Giese, wire chief, and F. Mulligan, repairman, at Chippewa Falls, have left the service and are succeeded by E. L. Godding and P. Benrud, respectively.

Myrtle Kehnl, chief operator, and Loretta McDowell, operator at Chippewa Falls, have left the service and are succeeded by Loretta Strahan and Sybel McCulloch, respectively. Miss McDowell expects to spend the winter in New York with relatives.

Mary Stoeckle, local operator at Eau Claire, died at the Sacred Heart Hospital at 8 p. m. November 2nd, after an illness of but two days. Miss Stoeckle first entered the employ of the Wisconsin Telephone Company at Eau Claire on August 13, 1906, after serving a period of three years for the Citizens Telephone Company of Columbus, Ohio, and two years with the Bell Telephone Company of Columbus, Ohio, making in all a total of twelve years of service as telephone operator. During her employment at Eau Claire she had earned an enviable reputation for attendance to duty and devotion to the interests of the company. About 4 p. m. the day before her death it was noticed that she was

Sterling

Contractors' Barrow

Built to give and gives the kind of service which contractors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction.

It will hold over twice the load of ordinary pan-shaped barrows and will oulast two similar style barrows of any other make.

Among its desirable features are:

Channel steel legs — 16 gauge steel tray — angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

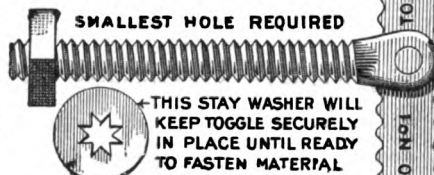
CHICAGO



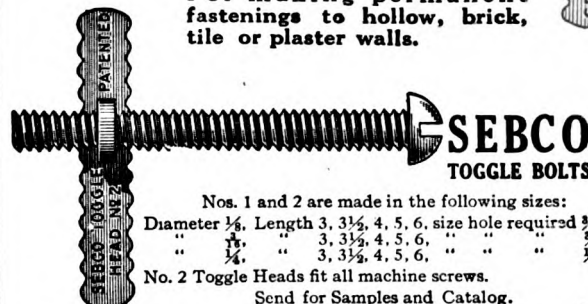
SEBCO TOGGLE BOLTS

The most secure and dependable means of attaching electrical fixtures to hollow backed material. They are superior and require a smaller hole for insertion than any known make, style or design.

Are easy to use and quickly adjusted. Their use insures a neat and everlasting job.



For making permanent fastenings to hollow, brick, tile or plaster walls.



Nos. 1 and 2 are made in the following sizes:

Diameter $\frac{1}{8}$, Length 3, $3\frac{1}{2}$, 4, 5, 6, size hole required $\frac{1}{8}$ in.
" $\frac{1}{4}$, " 3, $3\frac{1}{2}$, 4, 5, 6, " " " $\frac{1}{4}$ in.
" $\frac{3}{8}$, " 3, $3\frac{1}{2}$, 4, 5, 6, " " " $\frac{3}{8}$ in.

No. 2 Toggle Heads fit all machine screws.

Send for Samples and Catalog.

STAR EXPANSION BOLT CO.

147-149 CEDAR STREET - NEW YORK

ill, and upon being advised that she had better go to her home she stated that she wanted to finish out the day and also the day following in order to make a full week and would then probably take a two days' rest. This was never done, however, as Miss Stoeckle was taken to the hospital the following morning, where she passed peacefully away at eight o'clock in the evening.

Ruth Richards, chief operator at Bayfield, has resigned and is now supervising operator at St. Paul, Minn. Gertrude Harding has been promoted to chief operator.

C. Priffer and crew are repairing toll lines between Ashland and Bayfield. H. Milligan and crew between Ashland and Ironwood; H. Rambo and crew between Ashland and Abbottsford, and H. Mangold and crew between Ashland and Superior.

Anna Adamek, chief operator at the Ashland exchange, took a two weeks' vacation.

H. R. Erbe, repairman at Stanley, was married on September 30th to Esther Carlson of Stanley.

May Notman, night operator at the Stanley office, enjoyed her ten days' vacation at home.

Madison District

Fred Cummings, clerk at the Madison local office, has resigned, being succeeded by Ostra Erickson.

Joseph Schoen, commercial agent of the Madison exchange, has been temporarily transferred to the Madison District, and is at present making a canvass at the Baraboo exchange. His work is being taken care of by J. Robson.

John Johnson, assistant wire chief at Madison, has gone to California, where he will make his home.

Manager Browne of Waupun, recently secured contracts for eight stations, for the new State Hospital for the Criminal Insane.

The commercial department at Madison has secured a contract from the Madison Motor Car Company for a two by four cordless private branch exchange consisting of one trunk and five stations.

Laura Collins, operator at Ft. Atkinson, and Hazel Huggett, operator at Beaver Dam, have resigned to be married.

C. A. Joachim, chief clerk to J. J. Kelly, chief traveling auditor at Chicago, spent his vacation at Madison. Mr. Joachim for several years was chief clerk to District Manager F. J. Mayer.

A miscellaneous shower was given by the

Misses Lewis and Burr at the home of Henry Lewis, Thursday, October 14th, in honor of Hazel Huggett. The rooms were beautifully decorated and Miss Huggett was the recipient of many useful and pretty gifts. Luncheon was served and all present spent a very enjoyable evening. Miss Huggett was formerly toll operator at the Beaver Dam exchange.

Cupid has cast his arrow at another of our girls at Beaver Dam, as Thursday, October 8th, Catherine Mullins (Kitty) came walking into the operating room with that which tells its own story, the diamond, sparkling on her third finger.

Ollie Johnson has been employed as stenographer in the district office.

Work on the switchboard at Waupun is nearly completed. This will give an additional local position and make the facilities for handling local business much better.

Manager Quale of Baraboo and North Freedom exchanges returned October 16th from a week's vacation spent at Eau Claire, Chipewa Falls and Abbottsford.

Manager F. J. Anderson and wife spent a week's vacation at Richland Center and Whitewater, returning October 18th.

The northeastern part of the Madison district was visited by a tornado on Friday, October 10th. The damage to property which consisted mainly of barns, tobacco sheds and other frail outbuildings, as well as valuable standing timber, was great. The damage done to our lines extended over a considerable territory. We were very fortunate inasmuch as we only lost fourteen poles. The territory through which the Madison-La Crosse lines run is for a great distance in the timber. It was at such places that we had the most difficulty in making repairs, owing to the difficulty of getting the wires from under the fallen trees. Communication was completely restored on Monday, October 20th. Reports from Tomah, New Lisbon and Mauston indicate that conditions were equally bad at these points. A small amount of damage was done in the Janesville-Rockford lead, six miles south of Janesville.

Milwaukee District

Mrs. Louis Nelson, formerly Leola Remillard, former operator at the Sturgeon Bay exchange, was a visitor at the Grand Office Building in Milwaukee on Friday, November 7th. She was shown through the operating rooms and rest rooms, etc., by Miss Crowley, Grand chief operator, and Miss Rosche, social secretary.

Michigan Division

David H. Dodge, Correspondent, Detroit

Mr. von Schlegell Addresses Society

One of the most largely attended meetings of the Telephone Society of Michigan ever held gathered September 17th to hear an address by General Manager A. von Schlegell on "The Welfare of the Telephone Society." Mr. von Schlegell did not confine himself to this subject and gave an interesting talk lasting about two hours.

He said that almost every telephone company has now a society of this kind, some companies maintaining several of them, and he cited such organizations as the Cross Talk Club, the Engineers' Club, etc. Our kind of society, however, combining social features with educational, was undoubtedly the best, particularly for men like the employees of the Michigan State Telephone Company, who were of a social nature. The general manager announced that all of the officers of the company, both here and in Chicago, are deeply interested in the welfare of our society and wish to help it financially or by active personal work, as cases might arise. This interest was felt not only because the society interested the men, but also because the officers realized the value of an organization which develops a hearty spirit of cooperation among the different departments. Inasmuch as the telephone business requires more cooperation than any other business among its employees, from the highest to the lowest, the officers want it understood that they are not only willing but anxious to furnish their part in producing the cooperation desired.

"Men cannot work with each other daily and meet each other socially in the evenings," said Mr. von Schlegell, "without some friendship as a result. Any dislike that is caused must come only from men's imperfect knowledge of each other." We were assured, also, that the speaker would endeavor to help provide certain forms of entertainment when it was possible—for instance, on occasions when Herbert N. Casson, the well known industrial writer and talker, or M. J. Carney, of Chicago, one of the veterans of the telephone business, who has a vast fund of interesting anecdote, was in the neighborhood,

You Can Save Time and Money

By

Equipping Your Office With



UNEDIT CLIPS

They are easily applied, hold securely and will reduce your mailing and filing expense.



Manufactured by

Buffalo Machine Mfg. Co.

1354-1362 West Ave.

Buffalo, N. Y.

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of

ELECTRICAL HARDWARE

PLAIN and GALVANIZED



Pole Steps

Braces, Back and Cross Arm
Break Irons
Bolts, Arm and Eye and Thru
Cable Racks and Hooks
Guy Rods and Clamps
Hub Guards

Pole Steps and Brackets
Pole Balconies
Pothead Supports
Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc.

either would probably be glad to talk at a meeting of the Telephone Society of Michigan.

Mr. von Schlegell suggested that the social side of our meetings be extended somewhat so that they embrace such features as boxing bouts, wrestling matches or some form of vaudeville entertainment. On no account should we allow any meeting to be held with a small attendance.

President Dawson of the society then asked the general manager to say something about the pension and benefit plan. "This plan has proved a great success," said Mr. von Schlegell, "and has aroused the admiration of every business man who has made an investigation of its provisions. The actuaries of the big American insurance companies have pronounced the plan a perfect one. One thing which might have spoiled it has not been encountered—that is 'graft.' There have been no attempts to secure undeserved or illegitimate benefits from the plan, and it is therefore evident that every Bell employee understands what I referred to in my former talk on this subject some months ago, namely that it is to his own personal interest to see that nothing of the kind ever does take place. This A. T. & T. Company plan is practically a mutual insurance proposition, and it behooves us all to be careful that no undue advantage is ever taken of the benefits provided." Mr. von Schlegell added that a remarkable feature, as the plan is at present unfolding itself, is that those who are benefiting from it are, in general, young men. It was expected originally that the majority of the beneficiaries would be the older men of the associated companies—in fact, the speaker had so stated in his first talk on the subject—but the reverse has happened; the majority of those men drawing financial advantage from the accident part of the plan have been young. This indicates, therefore, that the plan is of much greater interest to the younger men than had at first appeared.

Mr. von Schlegell was then asked to tell the society something about the recent telephone investigation in Detroit. He talked very interestingly on this subject, and showed how the high calling rate per telephone here was the chief cause of the troubles existing, but he requested the employees of the company not to advance this as an "excuse" when handling complaints from the public. Such were the conditions in Detroit, and while those conditions lasted, we were to make the best of them and provide good

service with the conditions, or in spite of the conditions.

However, that there had been a great deal of dissatisfaction was not really true. The public had not learned all the details. For instance, the "flood of written complaints" alleged to have been turned loose on the city hall investigators turned out to have totaled eleven—true and justifiable complaints, no doubt, but only eleven. Mr. von Schlegell then told us that recently, while he was in a certain town in Indiana, the manager of an opposition company confided to him that his subscribers were extremely dissatisfied with the service. "Why can't you give us good service, such as they have in other towns?" they had asked him—"Detroit, for instance, where the service is fine?" This, by the way, was while the city hall people were examining the Detroit troubles.

The general manager concluded his speech by asking if anybody present desired to ask him any questions. Several members of the society took advantage of this opportunity. Mr. von Schlegell's answers to their inquiries were to the point, and gave the information wanted quickly and clearly. The speaker of the evening was cheered heartily on resuming his seat and a rising vote of thanks was given him for his courtesy. Later in the evening another vote of thanks was given Mr. von Schlegell as an appreciation of the society for the liberal contributions extended by the Michigan State Telephone Company towards defraying the cost of prizes on the recent excursion to Bob-Lo Island.

Other speakers of the evening were G. R. Heywood, commercial special agent; J. W. Bisbee, installation foreman; W. J. Berry, agent for connecting companies (who told an excellent story illustrating a simple method of raising contributions from persons indisposed to give up); and C. S. Slack, Detroit district commercial manager.

The meeting was adjourned at a late hour, and refreshments were served, the society feeling that it had begun its 1913-1914 season most auspiciously.

Michigan Telephone Society Dance

About 150 tickets were purchased for this festivity, which took place November 4th at Strasburg's Dancing Academy. Rath's orchestra of eight pieces furnished the music. Leora Stevens, chief operator of the Walnut exchange, sang several solos, and was loudly applauded by the dancers. The electrical decorations, especially the large suspended

moon in the middle of the hall, were pronounced artistic and pleasing. Punch was served, but not taken to excess. Everybody had a good time. The affair was managed by the following members: Arrangements committee, W. F. Smith, J. F. Wardle, D. W. White, F. L. Wirth and R. A. Wright; reception committee, M. C. Glass, R. B. Smith, R. J. Casey, T. L. Finneran and G. A. Fritz; floor committee, L. M. Chicoline, G. T. Jeffers, M. C. Locke, A. J. Marxhausen and R. W. Christin. The dancing program, which provided for twenty numbers, was perhaps the most artistic one the society has ever gotten out.

October Meeting of Society

A novelty athletic performance was the attraction at the meeting of October 23d. R. A. Wright was the star of the evening, with Harold F. Coyle a good second. Both of these members are in the commercial department. The gold watch concerning which expectation had been on tip-toe for over a month past, was won by J. D. Duckett, also of the commercial department.

Mr. Slack's Meetings

Commercial Manager C. S. Slack had a large meeting of the men in his department the evening of November 12th, in the room of the Telephone Society. Most of the time was taken up by Mr. Slack discussing the recently published report of the Michigan State Railroad Commission, with special emphasis on the statistics furnished in this report. A thorough grasp of the points which these statistics brought out, he said, would enable them to discuss business over the counter more intelligently. Copies of the A. T. & T. Co. Commercial Bulletin No. 5, "Some Opinions of Reports in Favor of Message Rates," were distributed for the further information of the Detroit commercial employees, and many questions concerning metered service were taken up. Mr. Slack's explanations made it clear that there was nothing very intricate in such a system.

The men were also addressed by E. M. Steiner on "Disconnects," "Refunds," and recent rooming-house canvasses; by W. A. Cardinal, who spoke of allowances and of discontinuance dates, and by M. J. Hager, who suggested greater care in the credit department. Mr. Slack also spoke on the latter subject.

Partridge & Anderson

Designers
Electrotypers

Engravers
Stereotypers

ENGRAVINGS IN THIS PUBLICATION

PHONES MAIN
198 All Departments

AUTOMATIC
31-757 31-758

100-16 N. Fifth Ave. Chicago

INSULATION

No. 2

No. 1

No. 7

No. 305

New No. 10

Old No. 10

No. 562

No. 14

LOUIS STEINBERGER'S PATENTS

ELECTROSE MFG. CO.

66-72 Washington St. BROOKLYN, N. Y.
66-76 Front Street

ALSO FOR SALE BY

Western Electric Company

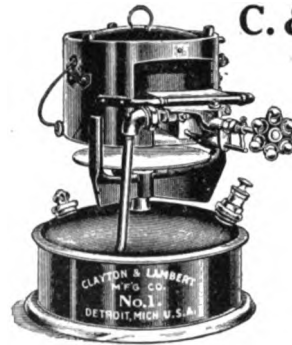
NEW YORK AND BRANCHES

"Beldenite" Rubber Insulated Telephone Wires

We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue, CHICAGO



C. & L. Quality the Best

C. & L. Fire Pots and Torches are constructed of the best materials, by experts skilled in the art, and are first in quality, durability and economy. The burners produce intensely hot blue flames in extreme cold and windy weather. When you need a Fire Pot or Torch you can depend upon, order a C. & L., for they are designed to meet your requirements and are fuel savers.

Your nearest jobber will supply at factory price, or we will ship direct when cash accompanies the order. A postal will bring our catalog—send for it.

Clayton & Lambert Mfg. Co.
Detroit, Mich., U. S. A.

No. 1 Fire Pot—Price each \$6.00 Net
No. 5 Fire Pot (One Size Smaller)
Price each \$4.50 Net

Detroit District

Cashier W. L. Burrows finds that he must increase the facilities in his department to take care of the increasing business, especially at the middle of the month, when many subscribers come to the office to pay their bills. He has added three cashier's cages to the office.

Gladys Kingston, clerk in the long-distance room, scored a big hit as a whistling soloist in the moon scene of "Hobo and Prince," which was staged by the Knights of Columbus, November 6th and 7th. She whistled the chorus of the "Hobo" song.

J. M. Cleland, of the plant accounting department, was married November 1st.

The girls in the Cherry office are very happy now, and the reason given for their happiness is that they have the honor of holding first place in the standing of all the offices in the Detroit exchange. This means a great deal to our Cherry girls, as this is a down-town office and a very busy one. Therefore, in order to express their satisfaction, the day force of supervisors presented their chief operator, Miss Kunze, with a beautiful bouquet of flowers. Saddle McKenzie, relief chief operator, received a beautiful bouquet also from the evening force. Hooray for the Cherry office, and best wishes for first place again!

Eastern District

Norval A. Wilcox, wire chief at Ypsilanti, was married in November to Edith G. Harris. Hazel Palmer, information operator at Ypsilanti, has been transferred to the commercial department.

Betty Greene, assistant chief operator at Ypsilanti, entertained twelve of the operators at a masquerade at her home October 31st. Halloween games and music furnished the entertainment.

October 21st a fire occurred at Munith, destroying eight of ten business blocks of the town. The Munith Telephone Company's exchange was located in one of the buildings that was not burned, but the switchboard and apparatus were removed from the building, as it was in danger. The operator, ringing all farm lines and telling subscribers of the fire, rendered considerable aid to the village. Next day Manager Stevens at Jackson, with three plant men, visited Munith, restored the switchboard and assisted the farmers and merchants in restoring their service. E. R. Carley, manager at Munith, after cutting the switchboard out, tapped the toll line to the booth telephone and kept the toll line going continuously, which was a great benefit to the community.

Merle Boswell, toll supervisor at Jackson, was married October 23d to Wesley Kilpatrick of Lafayette, Ind. Miss Boswell returned from a two weeks' vacation to make this announcement, and resigned her position.

Blanche Webb of the Detroit exchange acted as toll supervisor at the Jackson exchange during the absence of Miss Shorr, chief operator on account of the death of her mother. Miss Webb's services were greatly appreciated and operators were given many instructions that assisted them in their work.

Manager W. A. James, of Mt. Clemens, has returned from a week's hunting trip in northern Michigan.

Myrtle Lefevre has taken the position of clerk No. 3 at Mt. Clemens.

Irene Elsey, Mt. Clemens supervisor, has returned from a ten-days' vacation.

Lena Haller and Hazel Elsey, Mt. Clemens toll operators, enjoyed vacations.

Grace De Vantier, Mt. Clemens operator, spent a vacation in Lansing.

Kate Defenbaugh, of Mt. Clemens, enjoyed a vacation in Richmond, Mich.

Members of the Mt. Clemens Blue Bell club spent the proceeds of their dancing party a year ago attending the Temple theater last month.

Grand Rapids District

C. E. Vanderhoof has been promoted from manager at Eau Claire to manager at Water-villet and Colomo. He is succeeded at Eau Claire by C. M. Bradish.

W. E. Stubbs has been checked in as manager at Richland, succeeding T. E. Humphries, transferred to Dowagiac.

John Friend has succeeded Z. Bailey as toll station manager at Rothbury.

Mabel Curtis, clerk at Ludington, spent her first vacation in two years visiting in Chicago.

Miss E. C. Striver has been appointed manager at Hopkins, succeeding Mrs. Dean.

Marquette District

E. J. Larsen, special commercial agent, has been making an extended stay in this district, visiting exchanges in company with K. S. Baker, district commercial manager and traffic chief.

Ora Manes, district foreman, has purchased an auto. He bids fair to become Old-field the Second.

W. J. Chilton, of Chicago, Morse relief man, spent two weeks in Marquette, relieving J. I. Damp, district toll wire chief, a recent benedict. There must be something appealing in this clime, as W. J. also won a Marquette young lady.

Mr. and Mrs. F. Sullivan and Mr. and Mrs. K. S. Baker spent several recent week ends in camp at Buckroe, Mich.

E. E. Michaels succeeds A. T. Baker as manager at Sault Ste. Marie. Mr. Baker has gone to Ypsilanti. Mr. Michaels comes from Tecumseh, Neb.

Every Saturday morning, in the basement of the Marquette exchange, a class or school session is held for employees of the plant department. A demonstration board has been built showing the different methods of wiring-protection relating to the new specifications. Questions are asked and answered, charts drawn, etc. This promises to be a great help to all attending.

A new exchange area has been established at Iron River, transferring the exchanges at Crystal Falls, Iron River and Amasa from the Iron Mountain exchange area. C. T. Mahon is the new area manager. J. F. Martin continues as manager of the exchanges remaining in the Iron Mountain area.

J. J. Stewart succeeds the Schoolcraft Land and Improvement Company as manager of the Hunt's Spur toll station.

Oakley toll station has been discontinued.

What's the matter with the Marquette District? Ever since the combine of the several magazines into one, the present BELL TELEPHONE NEWS, the Marquette district has not had its share of space, and has offered no good excuse for this lack of interest. We hope to make up for it now, however. We've got a fine big country up here, just full of interesting things, so there's no reason why Marquette district can't hold up its end. The Upper Peninsula has very appropriately been named "Cloverland," and as such has been widely advertised. There are about a dozen real live cities scattered about the district, with their surrounding smaller communities. (Noted and approved.—EDITOR.)

Saginaw District

Emma Bundt, toll station manager at Clio, has resigned and is succeeded by William English.

John Barkman has been checked in as manager at Breckenridge, succeeding Watson & Son.

Flora Edith Billinger has been appointed manager at Rosebush, succeeding Mrs. Mary House.

Duff Purcotte has been checked in as manager at Flushing, succeeding Floyd M. Byrne, resigned.

Wire Chief McCullom of the Cheboygan exchange recently demonstrated clearly the old saying, "A stitch in time saves nine." At 4 a. m. Sunday, October 26th, three stores and a warehouse at the corner of State and Water streets were totally destroyed by fire and the office of the Cheboygan Coal and Coke Company was badly damaged. Mr. McCullom and his men arrived at the scene of the fire as quickly as the firemen, and by their quick action saved two telephones and a twenty-five pair cable. By manipulating a stream of water they kept the cable wet, although one of the poles supporting it was nearly burned down. No line trouble resulted, and this early morning "stitch" prevented inconvenience and loss to the company and its patrons.

Frank L. Johnson has joined the Saginaw district traffic force in the capacity of service inspector.

On October 30th the young ladies of the Port Huron exchange held a very pleasant dance. Appropriate decorations of the season with the "Blue Bell" insignia were used with charming results. Mesdames Berry, Maxwell and Outwater acted as patronesses.

J. C. Grossett has been transferred from manager at Alma to plant chief at Port Huron, vice C. L. Stevens, transferred to Detroit.

H. F. Allman has been transferred from the position of commercial adjuster at Bay City to exchange area manager at Alma.

J. R. Barkman has been transferred from the plant department at Alma to manager at Breckenridge.

F. Westover, information operator at Bay City, has been promoted to assistant chief operator.

M. Bebb, operator at Bay City, has been promoted to information operator.

Della Carr, operator at West Branch, has been promoted to chief operator.

Miss N. Haley, chief operator at Flint, has resigned.

Miss M. Reddy, assistant chief operator at Flint, has been promoted to chief operator.

Mrs. K. Jenner is promoted as assistant to the chief operator at Flint.

Mrs. Ethel Luthy, plant clerk at Flint, is transferred to the plant accounting department in Detroit.

Nellie Haley, who has been chief operator at the Flint exchange for the past three years, was married October 15th to Herman Dignan. Mr. Dignan is manager of a hardware store in Owosso. The young couple are at home to their friends after November 15th. The young lady employees of the Flint exchange gave a farewell party to Miss Haley in the Y. W. C. A. gymnasium. The evening was spent in various games and at the conclusion Miss Haley was presented with a gold mesh purse.

A large list of new subscribers has been added to the East Tawas exchange recently.

Barbara Gates, for a number of years connected with the traffic department, Bay City exchange, has resigned to take up other work. She was assistant chief operator at the time of her resignation and was well liked by all who knew her. A farewell party was given Miss Gates at the home of Mary Bebb. After a pleasant evening of games and music refreshments were served. Fourteen members of the Bay City traffic force were present.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

National Pole
Company

Escanaba, Michigan

When you want a Lock
you want the best.

EAGLE
LOCK
CO.

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



"Thomas Quality"
Porcelain Insulators

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

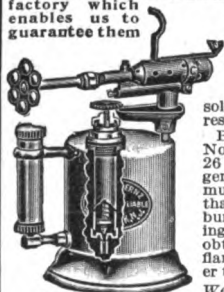
Distributed by

Western Electric Company

Offices in all principal cities

"Always Reliable Torches"

Are the best on the market. They
are thoroughly tested before leaving
factory which
enables us to
guarantee them



Fitted with
PATENT-
ED "never
leak" pump
and PAT-
ENTED
"one piece"
soldering iron
rest.

Burners on
No. 25 and No.
26 torches
generate gas
much quicker
than other
burners, enab-
ling the user to
obtain a blue
flame in a short-
er time.

No. 25, 1 Quart.

No. 26, 1 Pint.

We also manu-
facture a com-
plete line of fur-
naces especially adapted for the use of
telephone and telegraph companies.
Manufactured by
OTTO BERNZ, Newark, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using

FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



	Each
No. 2521	25c
Doz. lots	12½
100 "	11
500 "	10

Frankel Display Fixture Co.
Hudson and Vespy Sta.
NEW YORK CITY

Incorporated 1911

ALBERT G.
SEEBOTH
COMPANY

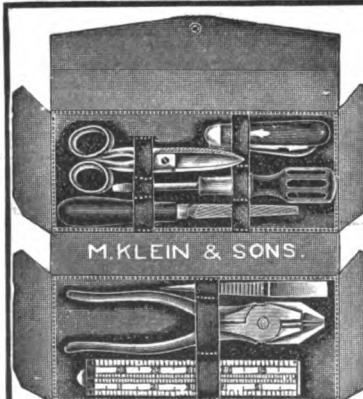
MILWAUKEE, WIS.

Manufacturers of

Cotton Batts, Cotton
and Woolen Waste

Phone South 532

Place your orders with us,
we save you money.



THE HANDIEST
THING TO GET

—IS—
Klein's



of
Tools

A Useful
XMAS GIFT
Mathias Klein & Sons

Canal Station 62
Chicago, Ill., U. S. A.
Harrison 2047

Catalog illustrating and pricing tools
of interest to YOU sent on request

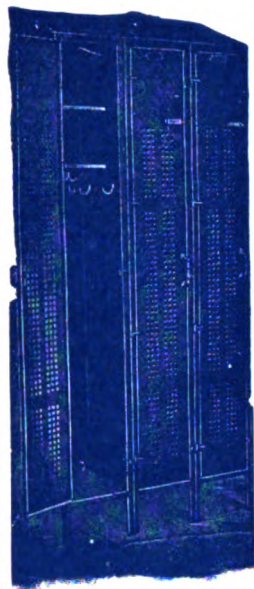
ADVERTISING

In the

Bell Telephone
News

BRINGS

RESULTS



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

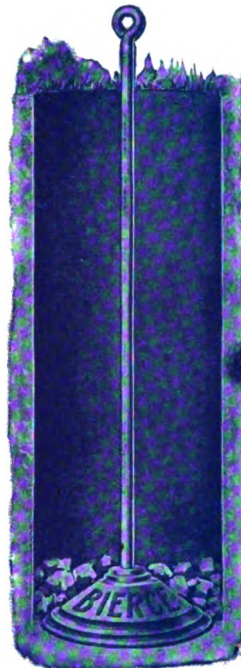
We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

TAKE NOTICE



Pat. Aug. 19, '13

The **Bierce Anchor** has been approved by the A. T. & T. Co., of New York.

The Bell Companies of Ohio, Indiana, Michigan, Illinois and Wisconsin have been using Bierce Anchors for months past. Ask the Bell man in your territory.

Costs less, holds more, will not creep, and can be buried quicker than any other anchor.

Sent on approval.

Write us.

THE SPECIALTY DEVICE CO.
112 West Third Street, CINCINNATI, OHIO

**HAVE HOT WATER
ALL WINTER**

BY SPECIFYING

THE "ILLINOIS" Hot Water Heater

Magazine Feed



**For HARD or
SOFT COAL**

**EFFICIENT
AND
DURABLE**

**KEEPS FIRE
OVER NIGHT**

Illinois Malleable Iron Co.
CHICAGO, ILLINOIS

Also manufacturers of a complete line of
Malleable and Cast Iron Pipe Fittings.

Diamond Screw Anchors

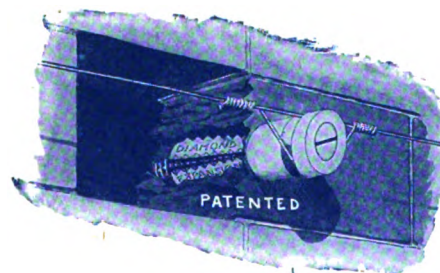


Fit any standard wood screw No. 5 to No. 30.

Easy to Use

When the anchor is in the wall it's like turning the screw in wood.

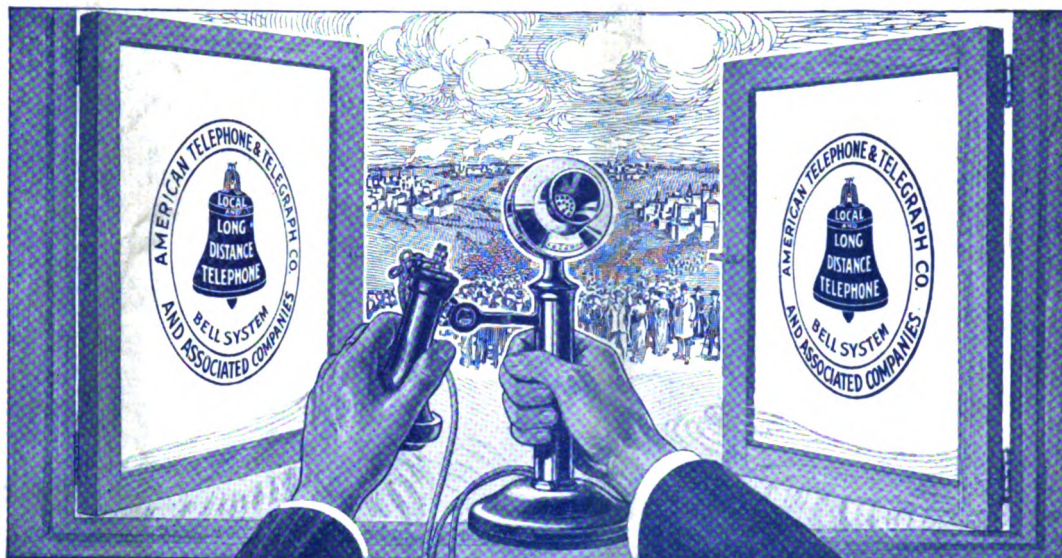
They make quick and permanent fastenings for light electrical equipment, insulators, brackets, clamps, conduit and wiring.



Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 West Street, Corner Cedar, NEW YORK



The Telephone Doors of the Nation

WHEN you lift the Bell Telephone receiver from the hook, the doors of the nation open for you.

Wherever you may be, a multitude is within reach of your voice. As easily as you talk across the room, you can send your thoughts and words, through the open doors of Bell Service, into near-by and far-off states and communities.

At any hour of the day or night, you can talk instantly, directly with whom you choose, one mile, or a hundred, or two thousand miles away.

This is possible because 7,500,000 telephones, in every part of our country, are connected and work together in the Bell System to promote the interests of the people within the community and beyond its limits.

It is the duty of the Bell System to make its service universal, giving to everyone the same privilege of talking anywhere at any time.

Because as the facilities for direct communication are extended, the people of our country are drawn closer together, and national welfare and contentment are promoted.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

January, 1914

No. 6

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

DECEMBER 1, 1913

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	502,946	251,373	754,319
INDIANA	87,145	176,604	263,749
OHIO	171,213	184,833	356,046
MICHIGAN	200,752	59,894	260,646
WISCONSIN	<u>134,921</u>	<u>114,718</u>	<u>249,639</u>
	1,096,977	787,422	1,884,399

BELL • TELEPHONE • NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., JANUARY, 1914

Number 6

Telephone Construction Men Work from Boats Along Old Illinois-Michigan Canal

During Past Few Months This Famous Waterway Has Carried More Traffic Than for Many Previous Seasons.

Whatever may be the final disposition of the old Illinois-Michigan Canal, there will be people along that stretch which runs between Seneca and La Salle, Ill., who will always remember that the canal served at least one great and useful purpose during this generation.

Since August 19th of last year the section referred to has developed a large traffic. The cause of the reopened activity, which has caused all this disturbance to the peaceful life of the canal and brought amazement to the people of Seneca, Marseilles, Ottawa, Utica and LaSalle, has been the rebuilding of the toll pole line of the Central Union Telephone Company, which has been on the canal property for a number of years.

Many years ago, before the day of the Mogul freight engine, indeed before railroads were thought of for this section, the Illinois and Michigan canal was an important factor in Illinois transportation. It extends from the Chicago River near Lake Michigan to a point on the Illinois River just west of LaSalle. The land grant for this canal was first made by the United States Government in 1822. The canal was started in 1836 and completed in 1848. By terms of the charter under which the canal was authorized, the property reverts to the federal government if it is not maintained as a waterway.

Since the development of more rapid means of transportation the slow-moving canal boat, with its faithful pair of mules, has practically disappeared from the Illinois landscape. The canal has been suggested as a part of the Lakes to Gulf deep waterway. It has also been suggested that it be filled and converted into a state highway. Bills for the appropriation of more than \$2,000,000 to put the canal to some adequate use have been introduced in each recent session of the legislature but nothing definite has been done.

Under an agreement between the Canal Commission and the Central Union Telephone Company the important toll line between Seneca and LaSalle was built on the edge of the tow path in 1898. For the past two years plans have been under consideration for rebuilding the line, which is twenty-eight miles

long and carries through circuits from Chicago to Seneca, Ottawa, Streator and LaSalle.

The first estimate, made up by the Illinois plant department, provided for a line of concrete poles. Conditions seemed ideal for the work, as it would be possible to form the poles on a barge and erect them with a floating derrick. After careful deliberation, the engineering department decided that the concrete pole experimental work had not yet advanced to the stage where it was desirable to erect so long a section of such an important line of this kind of construction.

While the estimate was being debated, the sleet storms of February and March, 1913, visited this section, the second storm

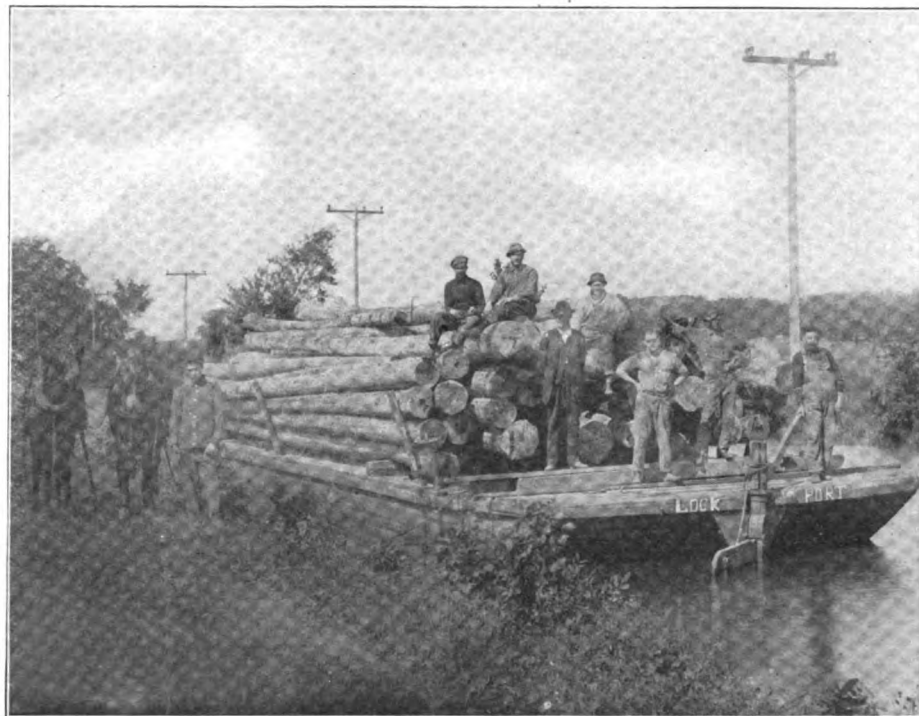
undoing practically all the repair work done since the first. It became essential to do something to take care of this toll route, and an estimate was made up and approved providing for a line of standard construction. Material having been secured the line was started late in August.

With the exception of short sections through the cities of Seneca, Marseilles, Ottawa, Utica and LaSalle, this line is on the edge of the tow path, on which, under the canal regulations, it is forbidden to do heavy trucking. There is no parallel road and the problem of properly distributing material and taking care of the gang led to an in-

vestigation of the feasibility of using the canal as a navigable highway. It was found that the canal commission had a complete outfit of barges, house boats, etc., which might be rented for a reasonable sum per day. A contract was made for the use of the fleet, and a boarding house organized, with the regulation mascot (bull dog) to assist the cook and keep the gang out of the way until the meal signal was properly given.

The work has been progressing very smoothly and the men have been enjoying their life on the rolling waves.

The illustration on this page shows a barge loaded with 102 thirty-foot, Type B poles, being towed upon the canal with the old style mule power. The poles are unloaded at the proper points, one at a time, as the barge reaches the designated



CANAL BARGE AND TELEPHONE GANG ON ILLINOIS-MICHIGAN CANAL.

stake. Scattered through this issue of the BELL TELEPHONE NEWS are other pictures showing the distribution of other material, the boarding house, the cook and helper, and the men lined up for meals, also one of the house boats used as office headquarters, with Foreman Fred Merrill standing in the doorway. Foreman Merrill has been working for the Central Union Telephone Company for a number of years and his friends throughout the territory will undoubtedly be able to recognize him from this characteristic pose.

Western Electric Changes

L. M. Dunn has been appointed manager of the Western Electric Company's branch in Pittsburgh, Pa. Mr. Dunn had been with the Western Electric only three years, but had been in the Bell service since he was a boy of fourteen. Starting as an office boy for the C. D. & P. Company at Pittsburgh, he held various positions, finally entering the plant accounting department. In March, 1910, he was transferred to the Western Electric Company as chief store keeper in Pittsburgh and in May, 1912, he became stores manager.

J. L. Ray, who has been appointed sales manager for the Western Electric at Pittsburgh, received his first electrical experience with the Westinghouse company from 1901 to 1905. In May of the latter year he entered the drafting department of the Western Electric Company at Hawthorne. In 1906 he was transferred to the general power apparatus sales department. In 1907 he took charge of that department at New York. During 1908-10 he was assigned special duties in the New Jersey territory. He took charge of city sales in New York in 1911. In December, 1912, he was transferred to Pittsburgh as assistant sales manager.

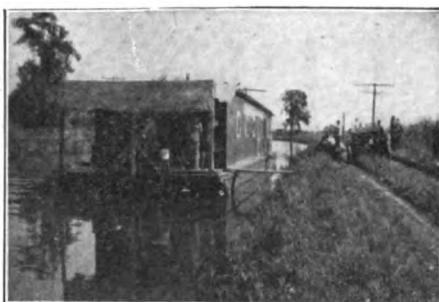
New York Company Takes Prize

At the International Exposition of Safety and Sanitation held at the Grand Central Palace, New York, last month, the grand prize was awarded to the New York Telephone Company for its interesting and instructive exhibit and its progress in welfare work for its employees. The telephone company's exhibit is an elaborate and unique display. It was planned and built by employees of the telephone company. The telephone switchboards are shown in actual operation. One was a section of the "Arlington," New Jersey, switchboard, and the other a section of the switchboard in the "Schuyler" exchange in New York City. The operators were busily at work making connections for calls that are being continually passed through the two exchanges. Connected with the "Schuyler" exchange there was also shown a typical sitting room for operators.

Operator "On the Job"

The telephone and a quick-witted operator saved, at least for the time, the life of a Chicago woman who had taken a dose of poison.

The call came into the Diversey exchange for a North number about 11:20 a. m. on December 8th. The operator could not understand the order and referred it to a supervisor, who finally succeeded in pronouncing the number intelligibly. As the woman placing the call seemed to be in trouble, the supervisor remained on the line until the called number answered. During the



TELEPHONE MEN BOARDING BOAT ON ILLINOIS-MICHIGAN CANAL.

interval the woman was heard to moan, "Come home, Alex, I am dying."

When the called party answered the poor woman who had made the call was unable to talk. The supervisor told what she had heard and the man named Alex was notified and started home. The Diversey chief operator called the police and an ambulance was dispatched to the house. The officers found the woman in convulsions and the telephone receiver still off. The officer informed the chief operator that the woman had been taken to a hospital. Later it was learned that she had died.

Drug Store Telephones

Wilhelm Bodeman, chairman of the Telephone Committee of the National Association of Retail Druggists, has contributed an article to the *Journal of the N. A. R. D.* suggesting that druggists familiarize themselves with the operation of the telephone exchange. Says Mr. Bodeman:

"If the druggists who are expected by the public to be posted on all things and dispense drugs as well as general information will but see for themselves how the mechanism works, get posted on 'A and B Boards' on 'Positions,' 'Cases,' 'Traffic Troubles,' etc., they could very materially help the public in operating the drug store 'phone much smoother and pleasanter.

"If you walk through these exchange rooms under the guidance of the chief operator, as I have often done—and in

my case I had the good fortune to have not only one of the best and most efficient chief operators, but a very estimable lady held in high esteem by her superiors as well as by myself—I soon learned that the often-heard charge 'that operator gave me deliberately the wrong number three times' is a gross and blatant error and—an unnatural one—for the quicker you are served with your right number the quicker your operator gets rid of you, and she would be foolish to prolong your kicking for the right connection by wilfully 'stringing' along the agony by giving you the wrong number.

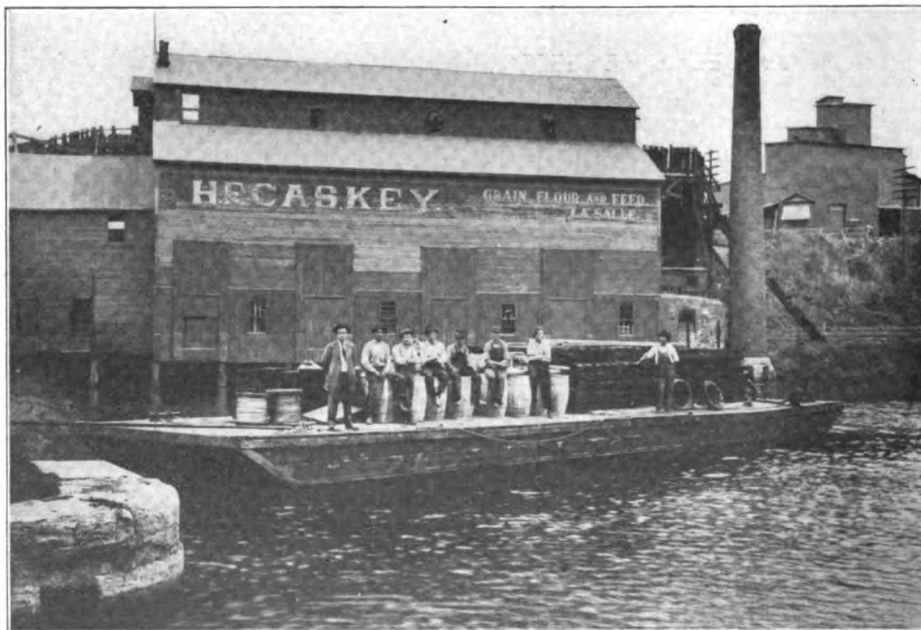
"I have made a rule to run up from time to time to my exchange and get polished up on the latest phases, and whenever I hear trouble and think I am right and the operator all wrong, I have called up my good friend, the chief operator, had her set me right and by following her advice implicitly I have avoided many unpleasant harangues and irritating misunderstandings, and I am certain if more of my druggist friends would do likewise they would find the time so spent a very useful as well as pleasant and instructive investment."

B. W. Trafford in "St. Nicholas"

The Christmas number of *St. Nicholas* has a picture of B. W. Trafford, who was for some months vice-president of the five companies in Chicago, and before that general manager of the Michigan State Telephone Company. The photograph shows him in football regalia when at Harvard, and is one of the illustrations to an article by Parke H. Davis entitled "The Field-Goal Art." A paragraph in the article says:

"The honor of having scored the largest number of field goals in a single game rests with B. W. Trafford, of Harvard, and was achieved against Cornell, November 1, 1890. Five times in this game did Trafford send a clever drop-kick across the bar. Three of these goals were kicked from the thirty-yard line, and two from the thirty-five yard line."

Mr. Trafford is now engaged in banking in Boston, and is also one of the directors of the New England Telephone and Telegraph Company.



GANG AND CANAL BARGE LOADED WITH TELEPHONE SUPPLIES.

Country Life

By Alonzo Burt, Vice President of the Central Group of Bell Telephone Companies—Talk Made to Monday Lunch Club, Chicago, December 1, 1913.

Almost everyone at some time in his life has felt the call to return to the land, in other words, he dreams that he wants to farm. This dream may be of a cattle ranch on the prairies of Texas, an apple ranch in the far northwest, or possibly of a chicken or squab farm right here at home. I do not pretend to know how far one should follow this inborn instinct, or hereditary force, handed down from some old-time forefather of several generations ago, and who was probably a pioneer somewhere in the making of a country. It is possible that this forebear came to the shores of America wearing wooden shoes, with his scant wardrobe tied in a bundle, but he was sturdy, and his hopes were high with the possibilities of success in this fabled land.

The pilgrim fathers were a sturdy people, who did much to place the name of America high in the galaxy of nations, but if it had not been for the hardy Dutch, Germans and other agricultural immigrants who have literally swarmed to the rich farming area of the west and northwest, our country would not have been half way settled at this time, and our geographies might still be teaching as they did as late as 1865, that the country west of the Missouri River was worthless, and was shown in the maps as the great American desert. These sturdy foreigners, who were endowed with industry and thrift, pushed back the shores of the desert, and made the land blossom with thousands of acres of grain, until the geography of today knows no desert or waste places within the borders of our country. We have good reason to take off our hats to this sturdy wooden-shoe brigade, and the sabot may well be recognized as an emblem of honor rather than as one of disgrace.

At the close of the Civil War the development in the empire west of the Missouri River was augmented by settlers from the older states. The Government offered large areas of land as a bonus to railroads for opening up the country, and railroads were built in every direction. Union soldiers returning from the war were given free land, and a great exodus set in from the east to the west, that continued for years. Towns sprung up almost over night, and the whole western country boomed, and prosperity loomed in the horizon. True, a boom here and there "busted" and the boomers disappeared from their usual haunts,

leaving those who could not run away to bring order out of chaos as best they could. Meanwhile, grasshoppers, simoon winds and cyclones wrought much havoc at times among the settlers on the land, many of whom turned back to the older states discouraged, and land values became almost nil. Our sturdy foreigners, however, were compelled to remain on the job, because they could not get away, and after a few years, prosperity was reached through better knowledge of how to farm this new country, and the price of land began to advance. It was not long until land prices were soaring, and today the average Western farmer is a plutocrat. He has come into his own, and through diversified crops, improved machinery and implements, he is now regarded as the most independent class in the country. The farmers of America are fast becoming its wealthy class. Their gross annual income is around eight billions of dollars, or about \$1,300 per farmer, which is a larger average income than is received in many other occupations. Through the scientific study of soils, climate, seeds, and methods of cultivation, the yield per acre is being increased from twenty-five per cent to one hundred per cent over the results obtained by the old trust to luck methods. Farming is now a scientific industry, as well as a solvent business. Food will never be as cheap again as it was a dozen years ago, and unless more of our population turns its efforts to farming, food will cost still more than at the present time.

We hear a great deal about the high cost of living, or the cost of high living, as you may choose to put it, but either term means to the most of us that it costs practically all we make to live. When we are fortunate enough to get a raise in pay it is soon absorbed by the rapid rise in prices. Many reasons are given for the increased living cost, but when these reasons are analyzed down to the bottom they all develop the fact that we are not growing enough food for the mouths we have to feed, which means that more of us should be tilling the soil; therefore, it is probable that when this dream of back to the land comes over us, we should heed it, and put our hands to the plow and try to join the plutocratic farmer class.

The business and industrial pursuits of the country are growing faster than our agriculture, and thousands of new farmers are needed to help increase our agricultural strength, and keep the United States a self-feeding nation, therefore, no time has been more opportune than the present for us to heed this call of back to the land. I read in the newspaper within a day or two that John L. Sullivan, the one time greatest prize ring fighter, has heard this call, after spending in riotous living more than a million dollars, earned from the ring and the stage, and he is now living on a small farm near Boston. I do not recommend John L.'s entire career as a worthy example to follow, and only mention the case to show that even he has found peace by heeding the call.

Nature responds readily and bounte-

ously to proper handling, but she is exacting, and gives up her treasures only to those who know her ways, and who are content to labor through all seasons and under all conditions. The early years on a farm are hard, but later years become easier, and in time the reward is greater than can ordinarily be reached by the average city worker. In farming, as in other occupations, the destiny of the individual depends largely upon his own efforts. He may be satisfied to be a mere plodder, and lose his identity in the throng, or he may be ambitious, and rise to a position of wealth and influence in the community where he lives. A good farmer is a close observer of nature, and resourceful in dealing with her moods and requirements. Even his predictions of the weather probabilities are usually more reliable than those of the Government weather bureau.

Now having shown you the road to prosperity and influence, and whether you follow it or not I want to add a little more about the beauty of nature, and the joy that can be experienced through life in the open.

A noted preacher once suggested reverently that another beatitude be added to read, "Blessed are they who are able to see."

Observation and consciousness of what one sees is a wonderful function of the mind, and for those who have this faculty well developed there is some beauty to be found in everything in nature. To find this beauty it is not necessary to journey far from our usual surroundings, particularly for those who live beyond the noise and grime of a great city.

Beauty is not only everywhere in nature, but it is present throughout the year, and I do not know which of the seasons is the most beautiful. Autumn is the ripening season, and the full glory of its gorgeous beauty is but the fulfillment of promises of seasons gone before. Spring, the awakening season of nature, gives us many delights, and the snows of winter have scarcely melted into the earth before the trailing arbutus, the violets and other early blooming plants begin to show their faces above the leaves of last year, which have sheltered them against the frosts of winter. As spring approaches, the branches of the willows, maples, birches and many other trees begin to disrobe from the sombre grays of winter, and take on brighter hues, ready for the flow of sap as soon as the sun gains sufficient strength to release their roots from the sturdy fingers of Jack Frost.

Each season has its prevailing color. Spring gives us white, with the delicate shades of pink and lilac. As spring turns into summer, the colors deepen into the various tones of green, and as autumn approaches, the yellows, purples and



COOK AND HELPER ON TELEPHONE BOAT ON ILLINOIS-MICHIGAN CANAL.



TOWING BARGE LOAD OF POLES ON ILLINOIS-MICHIGAN CANAL.

browns predominate, and never is there any absence of harmony in nature's use of colors. No one not a lover of nature could have written James Whitcomb Riley's quaint farm poems, such as

"The frost is on the punkin
And the fodder's in the shock,"

and no one not familiar with farming would even know what frost does to pumpkins.

To those who have lived amid mountains and hills, the prairies around Chicago are monotonous, but even the prairie has its type of beauty, although there is an absence of the glorious trees, rocks and plashing brooks found in the hilly country. Who can walk in the woods and fields anywhere, and not be inspired by the serene strength and harmony of nature, and pity be to those who are not familiar with the trees, shrubs and plants that are indigenous to the locality in which they live.

About the earliest shrub to show signs of spring life is the pussywillow, which puts out a good sized fuzzy bud, having the appearance of a kitten's foot, and from which it takes its name. With the approach of spring the song birds return from their southern pilgrimage, and soon are busy building their nests.

Early in June the wild roses are in bloom, and their clusters of beautiful pink flowers are found along the highways and on stony places, also in pasture fields.

A number of the common forest shrubs are early risers from their wintry sleep, and blossom without waiting to cover their branches with leaves. The dogwood, both the white and red flowering, blooms before the leaves appear, and it is conceded that there is no more beautiful flowering tree than the white dogwood. In addition to its splendid bloom in the early spring, its foliage and beautiful red berries add to the bright colors of autumn.

The redbud is another early bloomer, and loves to locate along a brook or in the edge of pasture fields, where there is plenty of water, but not so much as to be a bog or swamp. Very few trees or shrubs send their roots where they will constantly be covered with water.

The several varieties of the thorn, or haw, deserve attention. They grow almost anywhere, but prefer the edge of the forest, pasture fields and rocky hillsides. They bloom in April and May, and are covered with blossoms varying from deep pink to pure white. Their foliage throughout the summer is a bright green, and in the fall they bear a small apple varying in color from yellow to deep red.

Along highways or ravines, or in the edges of the forest, the sumac is found in groups and clusters. It is rather late in putting out its leaves in the spring, but the long frondlike branches form a

broad, flat top to the shrub, and in the autumn a spike of deep red appears on the top. At the same time the leaves take on a variety of shades of reds, browns and yellows, making a gorgeous show.

The wild grape is one of nature's most graceful climbing plants, and it loves to send its long trailing vines over the tops of low growing shrubs, or over rocks, stumps and old trees. The foliage makes a close cover, and the fruit is in small bunches, similar to the cultivated grape, and of about the same dark blue color. When ripened by a few light frosts, the fruit is juicy and sweet.

An old fence, of either wood or stone, is a favorite haunt of the bittersweet, with its yellow flowers in June and yellowish red berries in the fall. It is here also that we find the native clematis, with its beautiful mass of white, which holds its leaves quite late in the fall.

Where the soil is a sandy loam, not too wet, but shaded by trees and shrubs, the fern is likely to grow in abundance. Everyone knows the foliage of the fern, which is extensively cultivated, but the fern looks its best in its native habitat, among rocks partially shaded, and enough moisture to keep the roots well irrigated.

Many persons avoid the woods and fields because of a fear of snakes, insects or poisonous plants. There are very few dangerous snakes in a settled country, and these will not bite unless their avenue of escape is cut off. The mosquito is about the worst insect to be encountered. The poisonous plants are few, and can be easily identified.

The ivies with five leaves on a stem are never poisonous, but those with three leaves are poisonous to some persons. A very little study of the two varieties, the shape and color of leaves, will enable one at a glance to distinguish the poisonous from the non-poisonous. That nature abhors ugliness and hastens to transform it into beauty is evidenced in the speed with which a fallen tree is covered by moss and vines. True, some of the vines may be of the poisonous varieties, but these are more pleasing to the eye than the fallen giant of the forest.

The lordly beech is one of the most majestic of our native trees. It has widespread brances, smooth bark, thick foliage and a small bur that opens after a few frosts and drops a small three cornered nut, which is rather tedious to open, but which is rich and sweet.

The persimmon is a tree that every one should recognize on sight. It is found in old pasture fields and along the edge of the forest. It is a nicely rounded tree, which bears a fruit that when ripened by a few early frosts is good to the taste.

I wonder if there has ever been a boy or man who has not at some time experienced that desire so inherent in humanity, to go fishing. The man who has not sought the banks of a stream, equipped with pole, line and bait, and a large degree of expectancy, has indeed missed one of the most pleasant experiences of life, even though the catch may have been small. The hooking and landing of a gamey fish gives a thrill that cannot be counterfeited. While waiting for a bite is an excellent time to watch the movement of the birds and bees, who are forever busy in and out among the trees, bushes and plants. A pair of thrushes, busy with their nest in a nearby thicket, look askance at you, knowing that you are not of the woods or fields, and, there-



TELEPHONE GANG READY TO START ON ILLINOIS-MICHIGAN CANAL.

fore, suspect that you are unfriendly, and need watching.

Should the place selected as a fishing hole not prove satisfactory, you move on to another, and the moving gives a change of scene, with perhaps a wider view of the landscape. Through the treetops you see the fleecy clouds that float so lightly in the sky on a perfect day in June, and as the afternoon wanes, and the sun drops towards the west, the cattle begin to turn their way to the barnyard, where they are wont to find a hearty meal. You know by these evidences that it is time for you likewise to turn your face homeward. As you pass along, you disturb a rabbit in its hiding place. There is so little chance to get under cover where the rabbit selected his refuge that you wonder why you did not see him before he ran away. Nature, however, has given "bunny" a coat that is so like the dry grass, where he squatted for the day, that it needs a sharper eye than yours to see him, so long as he remained quiet. The meadowlarks are singing their evening song, and incidentally filling their crops for the night. Perhaps a hawk may sail leisurely along, seeking a late supper of ground mice, or if our friend, the rabbit, does not keep well under cover, he may supply the hawk with a meal. The swallows take wing as twilight approaches, and as they sail through the air, swiftly, but gracefully, one might wonder why they go round and round, but this is also their time to dine, and out of the atmosphere they get insects to sustain them over night. The piping of the bobwhite, and the call of the whippoorwill at eventide are as a benediction at the closing of the day.

There is another experience that every boy should have, and that is, to go nutting, and he is likely to keep on going after he grows to manhood. The butternut, walnut, beech and hickory trees are indigenous to most of the central states. The hickory and beech love the deep forest, but the walnut and butternut prefer the edges of the forest, or the fence rows which divide the meadows from the cultivated fields.

After a heavy white frost is the proper time to go nutting, as it requires a pretty sharp chill to loosen the nuts from the sturdy stems where they grow, but a stiff frost does the work, and the nuts come tumbling to the ground, where they can easily be gathered. A real live boy will not always wait for the frost to bring the nuts to earth, but will seek to climb the trees and dislodge the nuts by shaking the branches, or by knocking off the nuts with a pole. The beech, walnut and butternut trees are ordinarily not difficult to climb, but to scale the shaggy, shellbark hickory is a task for any boy or even man. When the hickory is young he is smooth of bark and of good appearance, but by the time he reaches the nut-



FOREMAN MERRILL IN CHARGE OF TELEPHONE GANG ON ILLINOIS MICHIGAN CANAL.

bearing age the bark on his trunk has cracked and roughened, so that an attempt to shin up may mean torn clothes and lacerated hands and shins; but a well filled sack of shellbark hickory nuts is cheap at the expense of torn pantaloons and barked shins, and when cracking and eating them by the side of an open fire on winter evenings, the labor and pain incident to gathering them are forgotten like a dream.

Walking of itself is good exercise, but to walk in the fields and woods among nature's glories is better than a tonic. No matter at what time of year you go into the woods, there are always many beautiful things to be seen.

To you who have children, I would urge their being taken to walk in the fields, woods and along the streams, as soon as they are able to make the tramp. Teach them the names of as many trees, bushes, plants, flowers and grasses as possible. Show them the beautiful pose of the long, slender limbs of the elm, the grace of the maple, the sturdiness of the oak, and the delicate lacelike leaves and strong tendrils of the ivies, which cover the rocks and fences.

Your business may necessitate your living in the city, but don't permit your children to grow up in a flat, without having some of the experience of country life, which is due every human being. Find a way of giving the children a holiday in the country whenever it is possible. Put on an old suit and go with them, and be prepared for anything that you may want to do in the way of climbing trees, rolling on the ground, or any other way of being a child again yourself. You may come home tired, but you will sleep sound, and be the better for even one day spent in God's great out-of-doors.

Merger Petition in Indianapolis

A petition signed by business men, bankers, professional men and others was filed recently with the Public Service Commission of Indiana, by citizens of the city of Indianapolis, praying that the two telephone companies now operating in the city be forced to merge.

The action was taken following a formal request made by the Central Union (Bell) Telephone Company upon the Public Service Commission for permission to advance rates, based upon the fact that the present rates do not pay a sufficient return upon the investment.

The citizens' petition sets forth in detail the objections to the dual telephone system and brings home the fact that in the last analysis the subscriber must bear the burden of supporting two telephone systems.

It is pointed out that both the companies are now making additions to their plants; in other words, duplicating equipment and investment upon which the citizens of Indianapolis must pay maintenance charges and interest.

Attention is also called to the fact that this duplication not only causes expense but impairs the efficiency of the service for the reason that no matter to what high degree of perfection the operating system may be brought, as long as subscribers are divided into two groups neither plant can give efficient service, as neither plant can give complete service.

The fallacy of beneficial competition which necessitates the subscribing for two telephones by business men, professional men, or anyone, in fact, who needs or wishes to have complete service, at a gross rental far in excess of what complete service by one company would cost

under commission regulation, is made clear.

In the securing of a merger a plan is made for the protection of small users and business men who cannot afford to pay high rentals and the petition closes as follows:

"Your petitioners therefore pray:

"That in justice to the people the Public Service Commission at once order that all expenditures by either telephone company must cease until the commis-



TELEPHONE BUILDING, LAPEER, MICH.

Picture Shows Plant Force Which Recently Finished the Lapeer Alterations.

sion is given satisfactory assurance that such expenditures are not being put into duplicate construction.

"That the Public Service Commission refuse to consider any application or request for increase in rates until the merging of the competing telephone systems of Indianapolis has been accomplished.

"That in addition to these prohibitions the Public Service Commission cite both telephone companies to appear immediately and show cause why both should not surrender their franchises, and with the assistance of the Public Service Commission, to merge the two systems, placing the power to fix and regulate the rates in the hands of the Public Service Commission, with the understanding that the rates at this time are to be based upon the amount actually shown to be invested in the operating plant. This proceeding, your petitioners believe, will be in the interest of and will result in the better and more complete and economic public service."

Cut-Over at Lapeer, Mich.

November 14th, between 5 and 6 o'clock in the afternoon, the cut-over to the new board and office at Lapeer, Mich., was successfully made. Both boards were covered by the operating forces, and when the word was given to pull the heat coils the operators in the new office immediately began answering calls. The new board is made up of three toll positions and five local positions of the No. 105 type.

On the second floor is located the operating room, locker room, small retiring room and terminal room. On the first floor is the public office, together with pay-station booths. Lapeer is a joint telephone and telegraph office and the telegraph operator is, therefore, located on the first floor in the public office.

The building is furnished with an adequate basement and steam heat so that, altogether, the new office represents a convenient and attractive exchange.

The outside plant has been rebuilt, with the result that Lapeer has today adequate and ample facilities for handling the telephone traffic at that point. At the time of the cut-over, besides the force working upon the inside and outside plant, there were present: H. E. Harrington, equipment supervisor; Fred Clarke, division traffic supervisor; C. C. Failing, dis-

trict plant chief, and A. J. Peckham, district traffic chief.

H. A. Backus, local manager, had his forces, both traffic and plant, ready for the change, so that the operating forces were familiar before-hand with the board and its operation, while the plant force stood ready to handle any trouble which might appear.

The accompanying photograph was taken while the alterations were being made on the new office. The picture includes, however, all men who rebuilt the Lapeer exchange as well as the local manager, H. A. Backus.

Bell Telephone Bowling League

STANDING OF THE TEAMS DEC. 20, 1913.

Team—	W.	L.	Pct.
Commercial	28	8	.778
Installation	28	8	.778
Engineers	27	9	.750
Maintenance	24	12	.667
Traffic	22	14	.611
Construction	15	21	.417
Revenue	13	23	.361
A. T. & T.	12	24	.333
Collectors	7	29	.194
Suburban Commercial	4	32	.111

The Bell Telephone Bowling League of Chicago finished the first half of the season with the Commercial and Installations tied for first place, and the Engineers a close contender. Carey, of the Commercials, stands at the top of the individual average column with 193 for thirty-six games. Love, of the Commercials, rolled the highest single game of the first half of the season, 267. Mr. Love is also second in individual average for the thirty-six games. Johnson of the Engineers, third highest in the individual average, rolled the highest three games, 224 average.



CHICAGO TELEPHONE OFFICIALS AT PRESIDENT SUNNY'S ANNUAL LUNCHEON.

- | | | | | |
|-------------------------|-------------------------|--------------------|----------------------|-----------------------|
| 1. W. R. Abbott | 20. John Uprichard | 39. H. M. Webber | 57. R. V. Johnson | 75. F. A. de Peyster |
| 2. H. N. Foster | 21. A. J. Brown | 40. G. M. Hubbard | 58. M. H. Riley | 76. V. R. Lanestren |
| 3. E. G. Drew | 22. O. J. Holbrook | 41. Verne Ray | 59. H. P. Wayman | 77. J. J. O'Connell |
| 4. A. T. Irwin | 23. A. E. Helzer | 42. A. P. Allen | 60. Robert Cline | 78. William Donaldson |
| 5. W. R. McGovern | 24. A. E. Van Hagan | 43. J. C. Weisert | 61. A. S. R. Smith | 79. W. J. Boyd |
| 6. B. S. Garvey | 25. J. M. Humiston | 44. W. C. Luscombe | 62. J. L. Procter | 80. H. H. Henry |
| 7. M. J. Carney | 26. F. E. Chandler | 45. W. F. Patten | 63. D. A. Bond | 81. A. M. Ramsay |
| 8. L. G. Richardson | 27. W. G. E. Peirce | 46. C. H. Hodge | 64. C. L. McNaughton | 82. W. E. Bell |
| 9. Cora Kohlsaat | 28. Mrs. F. E. Dewhurst | 47. E. P. Vette | 65. B. R. Cooper | 83. J. J. Kelley |
| 10. B. E. Sunny | 29. A. U. Hofer | 48. A. R. Bone | 66. A. P. Hyatt | 84. H. Dakin |
| 11. Alonzo Burt | 30. R. W. Sullivan | 49. E. H. Bangs | 67. A. B. Crunden | 85. C. D. Williams |
| 12. Mrs. Margaret Hyatt | 31. H. H. Smith | 50. M. P. Turner | 68. T. V. Field | 86. Herman Thomas |
| 13. A. S. Hibbard | 32. F. B. Rozine | 51. Samuel Bowsher | 69. George Duffy | 87. J. R. Jones |
| 14. C. E. Mosley | 33. T. G. Miller | 52. J. W. Bradshaw | 70. P. N. H. Munson | 88. C. G. Sharpe |
| 15. H. F. Hill | 34. W. Dakin | 53. James Niven | 71. D. C. Holloway | 89. L. C. Jones |
| 16. J. G. Wray | 35. W. W. Hiller | 54. S. A. Rhodes | 72. W. E. Conrad | 90. C. Boone |
| 17. H. J. Booth | 36. U. F. Cleveland | 55. E. A. Fritz | 73. J. S. Ford | 91. R. M. Bennett |
| 18. Frank Redmund | 37. Frank Furstenheim | 56. R. C. Luepke | 74. R. S. Peirce | 92. T. R. Keyes. |
| 19. S. J. Larned | 38. W. J. Malden | | | |

Mr. Sunny's Annual Luncheon

General officials and department heads in Chicago gathered at the La Salle Hotel at noon, December 24th, at the invitation of President B. E. Sunny. This luncheon has been an annual affair since 1911 and is looked forward to by the Chicago officials as one of the most pleasant events of the year. One of the smaller dining-rooms of the big hotel was used and it was decorated with holly in recognition of the holiday season.

After the luncheon, Vice-President Burt presided over a short program of music and speeches, introducing Mr. Sunny as the first speaker. Mr. Sunny spoke optimistically of the prospects for 1914, although the list of misfortunes suffered by the Bell System in the five states of the Central group during 1913 has been long. Mr. Sunny paid a high tribute to the officials and employees, giving them full credit for efficient services under the great difficulties encountered during the past year. He reviewed the progress of the Chicago Telephone Company during

1913 and made encouraging predictions for 1914.

Other speakers of the afternoon were A. R. Bone, commercial superintendent; Frank Redmund, general plant superintendent; Robert Cline, construction superintendent; S. J. Larned, general traffic superintendent; E. H. Bangs of the engineering department, and A. T. Irwin, editor of the BELL TELEPHONE NEWS. A. S. Hibbard, former general manager of the Chicago Telephone Company, made a short talk and led the singing of "The Big Blue Bell" and "America," with which the program closed. During the afternoon several selections were rendered by the Arcadian quartet, consisting of R. W. Sullivan, H. H. Smith, A. U. Hofer and F. B. Rozine. W. G. E. Peirce sang the "Stein Song," all joining in the inspiring chorus.

An amusing feature was a series of telephone calls for prominent officials, rung up at a telephone on the table before H. P. Wayman. As the calls had not been anticipated by the officials wanted, Mr.

Wayman did their talking for them and took full advantage of the opportunity to get in a few personal hits for the benefit of the audience.

X-cited

The wire chief at Merrill, Wis., after making a test on a cut made by the repairman, which cut the chief of police and chamber of commerce telephones on the same line, told the repairman that there was a twenty-four-volt ground on the X-side of the line. Some inquisitive gentleman waiting on the line in the chief of police's office on hearing this, became excited and yelled "Ver iss it, on the east side? Vell, there haint no policemen here now; ven dey come, I vill tell dem to come to the east sid right away." The wire chief began to laugh, whereupon the excited gentleman said: "Vel, don't laugh at me, I can't help it. I can't assist you. I don't know ver to look. Chust as soon as the policemen come, I vill tell dem about it."

A. T. & T. Company to Give Up Control of Western Union.

Attorney General McReynolds announced from Washington December 19th that an agreement had been reached between the government department of justice and the American Telephone and Telegraph Company, under which the A. T. & T. Company will dispose of approximately \$29,000,000 stock it holds in the Western Union Telegraph Company. The company also agrees to admit independent telephone systems to connection with the long distance lines of the Bell system, and to make no more mergers with competing local telephone systems except with the consent of the attorney general.

The agreement was in lieu of a suit against the companies under the Sherman law to establish full competition in the wire service of the country.

The announcement created widespread interest. The *Chicago Inter Ocean* of December 28th, said:

"Western Union has been a self-financing institution. It has remained as independent of American Telephone as has some totally dissimilar line of business, so far as corporate organization is concerned.

"Not only that, but Western Union has not been obliged to borrow a dollar from American Telephone. In fact, American Telephone has been and still is a debtor to Western Union—representing the unpaid for portion of New York Telephone Company stock purchased from Western Union in 1909 and the funds due for settlement of the famous Western Union suit against the telephone company.

"Back in 1909, when American Telephone bought into Western Union, Mr. Vail took the presidency and supplied the big ideas that have added almost fifty per cent. to its revenues in a short four years—the first growth for nearly ten years. The actual management has been in the hands of Newcomb Carlton, whom Mr. Vail discovered in England. If he remains in Western Union as executive head, there is assurance of a continuation of the same able and honest management that has been steadily putting the corporation on its feet.

"It is impossible to recount in brief limits the large measure of transformation which has been wrought in Western Union in four years. It has been a most thorough although orderly sort of house cleaning.

"Gross revenues show the most spectacular evidence of what has been accomplished. The growth has been from \$30,541,072 in the year to June 30, 1909, to \$45,321,451 in the 1913 year, a gain of \$14,780,379, or 48.4 per cent.

"Instead of standing still and handing over the growth of the telegraph business to its rivals, Western Union has shot ahead. Thanks to Mr. Vail, the public has had bestowed upon it the night and day letter telegraph service, the week-end and deferred delivery cable messages, the press rate messages and various minor forms of cable service. Facilities for telegraphing have been enormously improved, including copper wires. It is safe to estimate that \$4,000,000 has been spent in office and terminal betterments and rejuvenation since the telephone people took over the operation of Western Union. Plant maintenance has been steadily increased to the great disadvantage of net. In fact, the policy of the present management has been to turn

every dollar above the three per cent. dividend into plant and equipment or for increases in the salary and wage account.

"The public, however, has had ninety-nine per cent. of the advantages of American Telephone-Western Union joint management. American Telephone has been out of pocket. But the public has received not only the diversified forms of service, but the enormous benefit of getting telegraph offices into terminal buildings where they are reachable and not merely in isolated railroad stations. Today it is possible to send a telegram by lifting the telephone receiver. That has been the big contribution of the Vail administration. The public has learned the trick and will never go back in the old days. The Western Union and the Postal people must hereafter be on hand to take telegrams at all hours, as the public insists, and over the telephone.

"There is no reason to doubt that Western Union will be absolutely independent. It needs no banking affiliations. It is the grandfather of the Bell system in point of age. The way to big things has been pointed out. It is now simply a case of good management and honest administration.

"There is, of course, some similarity between the stockholders of Western Union and American Telephone. That is natural, as both are tax-exempt in Massachusetts and the telephone control of Western Union had produced a drift that way. But this is inevitable and a situation which government decree cannot well alter."

In the *Boston News Bureau* of December 25th, Governor Foss, of Massachusetts, is quoted as follows:

"I liked the tone of the President's (Wilson's) letter concerning business but I wish some other way had been found by the Washington people to promote the development of the Telegraph Company than by separating it from Theodore N. Vail. He has been the great developer of not only the telephone, but the telegraph business of this country and he has led the world in telephone development and has given us the past few years the wonderful achievements of week-end cable letters to Europe at reduced rates; night letters by telegraph over the whole country, at reduced rates, and day letter rates over the whole country.

"He also made it possible for any business man to pick up the telephone and send a telegram or a cable anywhere in the world in a flash.

"These are wonderful achievements and I am afraid the business men and the business interests of the country are going to miss Mr. Vail when the telegraph is taken out of his hands.

"I am not a lawyer but as a business man I cannot see why the public is not a loser by the separation of the telegraph from the telephone. Certainly the combination of the telephone and telegraph was not in restraint of trade but was the greatest promoter of trade.

"Combinations to restrain trade should be broken up, but combinations to usefully promote trade and create new business and give the public new and improved facilities should be encouraged by the government for the public good. The legal department may score a victory

but it seems to me the public can compute a loss when Mr. Vail is taken out of the telegraph business."

Evening Course in Telephony

About three years ago the question of instruction in the Chicago technical high schools in the principles and practice of telephony arose. Negotiations between the Board of Education and the Plant Department School resulted in outlining a course of study and making arrangements for furnishing material to be used. It was felt, however, that the time then was not ripe for actively engaging in this work, and the net result was the institution of part-time work somewhat on the "Cincinnati" plan. This consisted of employing students of the Lane Technical High School in pairs, each student working and attending school alternate weeks, and each taking the place of the other in the office and classroom.

The principal of the Lane High School started an evening course on this subject at the beginning of the evening term last year, meeting four nights a week, under the instruction of an inspector from the Western Electric Company. The interest aroused in this class resulted in the request from several south side men for a similar class in a south side school. After the necessary preliminaries, the different departments were communicated with to ascertain if the requisite twenty-five interested men could be found. Response to this inquiry brought out the names of 120 men in the employ of the Chicago Telephone Company who signified their desire to join the class, and the instructor was chosen from the force of the Plant Department School.

The active work was begun on the evening of November 24th at the Wendell Phillips High School and seventy-three were enrolled. It was felt that attendance on four nights a week was too severe a requirement, and this with the size of the class made it necessary to form two classes meeting alternate nights. The course of study outlined contemplates alternate lectures and laboratory sessions. As the result of the cooperation of the prominent manufacturers a large variety of apparatus has been placed at the disposal of the class, and the students are given an opportunity to examine and handle the telephone parts as well as to wire up the standard circuits.

Additional students have presented themselves for admission to the class nearly every session, and the total enrolled has now reached 108. The average attendance is forty-five. The classes are conducted very informally, the freest possible discussion being encouraged, and it is believed that a great benefit is derived.

After the Christmas recess the class resumed on January 5th, and it is expected that the winter term will be even more of a success than the fall.

Cut-Over at Monroe

The United Telephone Company, which operates at Monroe, Wis., and connects with the Wisconsin Telephone Company's system for long-distance service, cut over a new common-battery exchange in November. The Western Electric Company installed the board, which is 1,200-line capacity. The company put up considerable cable and now has a model plant for a city of this size.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
 A. BURT, *Vice President*
 W. I. MIZNER, *Secretary*
 C. E. MOSLEY, *Treasurer*
 L. G. RICHARDSON, *General Counsel*
 B. S. GARVEY, *General Auditor*
 J. G. WRAY, *Chief Engineer*
 CLIFFORD ARBICK, *Manager Publicity Department*

H. F. HILL, *General Manager*,
 Chicago, Ill.
 E. A. REED, *General Manager*,
 Columbus, Ohio
 H. O. SEYMOUR, *General Manager*,
 Milwaukee, Wis.
 L. N. WHITNEY, *General Manager*,
 Indianapolis, Ind.
 A. VON SCHLEGEL, *General Manager*,
 Detroit, Mich.
 H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

JANUARY, 1914.

To San Francisco in 1915

Before the opening of the next world's fair New York will be talking, regularly, to San Francisco by Bell long-distance telephone. It is announced that PRESIDENT VAIL, of the American Telephone and Telegraph Company, has already talked over experimental circuits and that he heard clearly over the more than 3,000 miles of wire and "phantom" stretching from New York to the Pacific. It will be some time, however, before the details are all worked out and commercial service established.

The completion of this vast project means more than the linking of coast to coast. It means that a higher grade of engineering quality in long-distance planning and construction has been employed. When the link to Denver was added to the then existing limits of east to west service a few years ago, Mr. J. J. CARTY, chief engineer of the American Telephone and Telegraph Company, explained that the achievement was the result of adapting the Pupin coil to wire of large gauge, the perfected application of the "phantom" principle and the improvement in insulation by means of which current leakage was reduced to the minimum. No new principles were involved. Hard work and infinite pains did the trick.

The extension of the service to San Francisco must mean harder work and finer calculations. The added distance is 800 miles, as the crow flies, but so many are the curves, twists, ascents and descents among, and up and down the mountains and valleys, that the shortest railroad route is more than 1,300 miles. This is the advance in long-distance limits expected to be made in a single leap when the San Francisco extension is completed.

The improvements necessary to perfect the through service will naturally improve the service between intermediate points and the telephone user who may never call up San Francisco from New York may benefit by getting better service between Rock Island and Omaha or Topeka and Salt Lake.

Protection that Protects

A recent issue of the *Western Electric News* describes the effects of a bolt of lightning which struck a drop wire of the New York Telephone Company.

When the troubleman arrived he found that every particle of the copper and steel that had been enclosed in the insulating covering had disappeared. The covering showed no sign of having been burned but was split along its length as though by a sharp knife.

While it is impossible to tell exactly what happened, the theory is that the metal was instantaneously vaporized by the lightning and the covering was ripped open by a terrific explosion.

Notwithstanding the inconceivable velocity and strength of this electric flash, the subscriber's telephone instrument was found to be absolutely uninjured. The lightning arrester had met the emergency and the awful bolt had been carried harmlessly to the ground.

Subscribers' Final Accounts

On another page is printed a list of exchanges in the Central Group which are collecting fifty per cent. or better on subscribers' final accounts.

In the present list only those exchanges which have been on a centralized accounting basis for six months or more are included, as the percentage taken for a less period would not permit of a fair comparison. As all exchanges are expected to be on the centralized basis by the first of 1914, the list will be extended to include other exchanges as fast as they become eligible.

A manager's real ability as a collector might be well reckoned on his success in obtaining settlement of final accounts. While the final bill is an obligation on the subscriber just as valid as the current bill, it is, for obvious reasons, harder to collect. At the same time if not collected, it is a loss of just that much money to the company, in addition to being an obstacle to overcome before again furnishing service to the subscriber.

It is hoped that by the publication of this list it will be demonstrated by some of the managers for the benefit of the rest that the collection of a high percentage of final accounts is possible.

Resourceful—Always

We smile, and there is no harm in that, at the little stories that are told of peculiar requests by subscribers and some of the odd directions offered by toll users to assist the operators in locating distant parties. It would seem, for instance, that a call for "a yellow-haired girl that works in a restaurant at Smithville" is merely an attempt to have fun with the operator, and such it might be considered if Chicago were named instead of Smithville. But Smithville is a small place with few restaurants. The Smithville toll operator probably knows instantly who is wanted and the call (this was an actual case) is completed in three minutes.

Few people would be found to criticize the service if an operator should decline to attempt the task of locating a distant party from such indefinite directions. The telephone traffic people, however, are always ready and glad to make the attempt. A patron is generally giving the best directions he knows. His call may be important, in fact some of these "freak" calls are among the most urgent which the toll operators are called upon to handle.

The Bell System is "finder of men." While our traffic people do not claim to rival the subtle arts of Sherlock Holmes or the Pinkertons, it would be an obscure person indeed who could elude the energetic search of "long distance."

Remedy for "Small-Boy Evil"

PLANT SUPERINTENDENT W. R. HIRST, of Indiana, has had considerable success in reducing the damage to insulators by small country boys by means of a "campaign of education," which his foremen are conducting. It is often apparent to men inspecting toll lines that boys on their way to and from school have thrown stones at the insulators or pieces of old wire over the lines. Whenever the men pass a school house, after seeing evidence of such damage, they stop and ask permission of the teacher to talk to the children a few minutes and explain to them what happens when insulators are broken and pieces of wire are thrown over the lines. The plan has been very successful in preventing further mischief.

True, If Whimsical

A newspaper in Mt. Clemens, Mich., expresses, in the following little whimsicality, a great truth, which students of economics have always admitted and reasonable minded people everywhere are fast coming to understand:

"'Adolph.' No, you are not losing, rather you are gaining, when you pay (telephone) rentals in advance. If rentals are collected in advance, the company makes no losses. So, then, if there are no losses, the people who do pay are not 'soaked' because of the failures of people who do not pay.

"You may be certain, Adolph, that the payers ultimately pay everything. It is charged up somewhere. If you pay, the last thing that you ought to want is to see others given a chance not to pay."

As to Courtesy

When a man uses just common courtesy in dealing with his associates or patrons of the company, it could not be said that he is entitled to special credit. That is expected of him. It is when he uses uncommon courtesy that the obligation is shifted to the other side.

District and Division Collection Rating

NOVEMBER 1, 1913.

	Total charges.	Total credits.	Total unpaid Nov. 1.	Pct. credits to total chgs.	Pct. cash col. on final accts.	Stations.
1. Wisconsin Co., Appleton District.....	\$ 66,016	\$ 63,571	\$ 2,445	96.2	34.7	26,883
2. C. U. Co., Columbus District.....	81,799	76,788	5,011	93.8	11.33	22,184
3. C. U. Co. (Indiana), Southern District.....	47,970	44,766	3,204	93.3	24	19,089
4. C. U. Co., Chillicothe District.....	54,882	49,084	5,798	89.4	27.5	18,846
5. C. U. Co. (Indiana), Northern District.....	78,899	70,298	8,601	89.1	21.8	26,061
6. Wisconsin Co., Eau Claire District.....	35,382	31,415	3,967	88.7	13.9	13,669
7. Wisconsin Co., Madison District.....	41,733	36,943	4,790	88.5	23.8	16,391
8. Michigan Co., Detroit District.....	393,750	345,060	48,690	87.6	29.5	81,553
9. Wisconsin Co., Janesville District.....	11,549	10,118	1,431	87.6	33.2	4,496
10. C. U. Co., Centralia District.....	12,158	10,608	1,550	87.2	11.5	5,123
11. C. U. Co., Jacksonville District.....	12,443	10,726	1,717	86.2	30.6	4,308
12. C. U. Co., Champaign District.....	7,462	6,425	1,037	86.1	20.8	2,385
13. C. U. Co., Dayton District.....	77,821	66,332	11,489	85.2	18.5	23,447
14. Chicago Co., Chicago Division.....	1,534,190	1,302,486	231,704	84.9	44.4	345,292
15. C. U. Co., Akron District.....	96,952	82,300	14,652	84.9	25.6	24,012
16. Chicago Co., Chicago Heights District.....	8,732	7,417	1,315	84.9	30.5	2,626
17. Chicago Co., Blue Island District.....	12,189	10,330	1,859	84.7	33.4	3,477
18. *Wisconsin Co., Milwaukee District.....	404,542	341,730	62,812	84.4	50.8	62,736
19. C. U. Co., Toledo District.....	78,156	65,458	12,698	83.8	8.7	23,923
20. C. U. Co., Galesburg District.....	9,149	7,621	1,528	83.2	3.4	3,487
21. Chicago Co., Gary District.....	13,033	10,838	2,195	83.1	18.9	2,269
22. C. U. Co., Alton District.....	11,474	9,454	2,020	82.4	4.5	3,227
23. Chicago Co., Aurora District.....	21,075	17,317	3,758	82.2	36.4	6,786
24. Chicago Co., LaGrange District.....	18,931	15,499	3,432	81.4	35.5	5,144
25. Chicago Co., Hammond District.....	24,073	19,434	4,639	80.7	21.7	5,900
26. Chicago Co., Joliet District.....	35,370	28,473	6,897	80.5	21.7	9,856
27. Chicago Co., Oak Park District.....	41,078	32,978	8,100	80.3	36.1	10,052
28. Chicago Co., Waukegan District.....	34,733	27,879	6,854	80.3	36.6	7,870
29. C. U. Co., Paris District.....	2,972	2,374	598	79.9	...	1,675
30. Chicago Co., Woodstock District.....	11,758	9,370	2,388	79.7	36.6	3,521
31. Chicago Co., Elgin District.....	18,701	14,824	3,877	79.3	35.8	6,116
32. Chicago Co., Evanston District.....	49,469	39,120	10,340	79.1	33.8	10,021
33. C. U. Co., Kankakee District.....	18,827	14,860	3,967	78.9	...	6,152
34. C. U. Co. (Indiana), Central District.....	155,731	121,883	33,848	78.3	19.2	31,804
35. Chicago Co., Wheaton District.....	13,410	10,447	2,963	77.9	37.9	3,807
36. C. U. Co., La Salle District.....	7,435	5,673	1,762	76.3	22.4	2,588
37. C. U. Co., Rock Island District.....	30,490	23,007	7,483	75.4	1	10,567
38. *Cleveland Co., Cleveland Division.....	533,307	399,664	133,643	74.9	30.3	58,005
39. C. U. Co., Peoria District.....	62,978	45,814	17,164	72.7	8.8	16,059
40. C. U. Co., Decatur District.....	17,561	12,498	5,063	71.1	4.2	5,570
41. C. U. Co., Springfield District.....	40,756	28,362	12,394	69.6	9.05	10,020
42. C. U. Co., Quincy District.....	18,052	11,509	6,543	63.8	...	5,522
43. C. U. Co., Rockford District.....	25,062	15,744	9,318	62.8	5.6	7,919
44. *Michigan Co., Saginaw District.....	97,200	60,752	36,448	62.5	3.9	21,191
45. *Michigan Co., Marquette District.....	100,435	54,445	45,990	54.2	26.7	15,296
46. *Michigan Co., Grand Rapids District.....	237,359	126,133	111,226	53.1	10.4	42,251
47. *Michigan Co., Eastern District.....	173,763	91,168	82,595	52.4	22.7	30,878
	\$4,880,807	\$3,889,000	\$991,803	79.7	....	1,070,051

*Quarterly rental billing.

DIVISION	SUMMARY.					
C. U. Co. (Ohio).....	\$ 389,610	\$ 339,962	\$ 49,648	87.3	18.1	112,412
Wisconsin Co.....	559,222	483,777	75,445	86.5	47.7	124,175
Chicago Co. (city).....	1,534,190	1,302,486	231,704	84.9	44.4	345,292
C. U. Co. (Indiana).....	282,600	236,947	45,653	83.8	20.2	76,954
Chicago Co. (suburban).....	302,552	243,935	58,617	80.6	30.9	77,445
Cleveland Co.....	533,307	399,664	133,643	74.9	30.37	58,005
C. U. Co. (Illinois).....	276,819	204,675	72,144	73.9	8.5	84,602
Michigan Co.....	1,002,507	677,558	324,949	67.5	26.8	191,169
	\$4,880,807	\$3,889,004	\$991,803	79.7	....	1,070,054

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent. of the total charges for collection during October, 1913, are given below:

City and state.	Per cent. collected.	Stations.
Columbus, Wis.....	100	846
French Lick, Ind.....	100	439
Princeton, Wis.....	100	133
Red Granite, Wis.....	100	100
Burnett Junction, Wis.....	100	78
Landen, Ind.....	100	70
Shelby, Mich.....	100	33
Mt. Orab, Ohio.....	100	13
Elkhart, Ind.....	100	11
Plainfield, Ind.....	100	5
Logansport, Ind.....	99.8	61
Jefferson, Wis.....	99.6	399
Fairland, Ind.....	99.6	60
Berlin, Wis.....	99.5	414
Algoma, Wis.....	99.4	254
Crawfordsville, Ind.....	99.2	2,910
Manilla, Ind.....	99.1	63
Sturgis, Mich.....	99.1	13
Auburn, Ind.....	98.8	1,070
Baraboo, Wis.....	98.8	775
Winneconne, Wis.....	98.8	139
Ft. Atkinson, Wis.....	98.7	788
Wrightstown, Wis.....	98.7	102
Vincennes, Ind.....	98.6	2,542
Spencer, Ind.....	98.6	254
Rainsboro, Ohio.....	98.6	143
Brooklyn, Ind.....	98.5	80
Horicon, Wis.....	98.4	356
Kewanee, Ill.....	98.3	410
Manitowoc, Wis.....	98.1	1,488
Watertown, Wis.....	97.9	915
Appleton, Wis.....	97.7	2,688
Edwardsville, Ill.....	97.6	1,223
Burlington, Wis.....	97.6	733
Hartford, Wis.....	97.5	666

Oconto, Wis.....	97.5	491
Oshkosh, Wis.....	97.4	4,860
Washington, Ind.....	97.3	1,521
New London, Wis.....	97.3	520
Bourneville, Ohio.....	97.3	54
Waupaca, Wis.....	97.1	493
Mayville, Wis.....	97	503
Hortonville, Wis.....	97	359
Bayfield, Wis.....	97	253
Danville, Ohio.....	97	239
Sturgeon Bay, Wis.....	96.9	766
Stanley, Wis.....	96.9	349
Kewaunee, Wis.....	96.9	264
Little Chute, Wis.....	96.9	48
Wabash, Ind.....	96.9	30
Stevens Point, Wis.....	96.8	934
Marshall, Ohio.....	96.7	166
Boggsstown, Ind.....	96.7	39
Belfast, Ohio.....	96.6	96
Richmond, Ind.....	96.6	34
Stoughton, Wis.....	96.5	1,062
Hart, Mich.....	96.5	54
Oconto Falls, Wis.....	96.4	547
Green Bay, Wis.....	96.3	4,964
Neenah-Menasha, Wis.....	96.3	1,493
Omro, Wis.....	96.1	115
Greenville, Mich.....	96	37
West Bend, Wis.....	95.9	440
Frankfort, Ind.....	95.7	2,112
Juneau, Wis.....	95.7	176
Kaukauna, Wis.....	95.6	445
Alexandria, Ind.....	95.6	387
Eau Claire, Wis.....	95.5	2,870
Menomone, Wis.....	95.5	1,205
Cedarburg, Wis.....	95.4	191
Anderson, Ind.....	95.3	3,147
De Pere, Wis.....	95.2	1,044
Canal Winchester, Ohio.....	95.2	159
Milledgeville, Ohio.....	95.1	167
Vandalia, Ohio.....	95.1	150
North Freedom, Wis.....	95.1	147
Peotone, Ill.....	95	62

Final Account Collection Rating

Exchanges in the Central Group where accounts have been centralized six or more months, that collected 50 per cent. or better of the total subscribers' final bills, as shown on the October, 1913, Collection Report.

	Pct. col-lected.	No. of stations.
Brooklyn, Ind.....	100	80
Smith Valley, Ind.....	100	58
St. John, Ind.....	94.7	111
Hampshire, Ill.....	87	6
Willow Springs, Ill.....	85.7	34
Hartland, Wis.....	82.6	173
Lisbon, Ill.....	82.4	123
Lake Geneva, Wis.....	80.5	1,098
Manchester, Mich.....	75	364
St. Martins, Wis.....	75	199
Chelsea, Mich.....	74.2	464
Culver, Ind.....	73.3	394
Naperville, Ill.....	71.5	494
Genoa Junction, Wis.....	70	230
Mayville, Wis.....	69.2	503
Peotone, Ill.....	68.8	62
Burlington, Mich.....	66.6	47
Dyer, Ind.....	66.6	17
Oconomowoc, Wis.....	65.4	647
Burlington, Wis.....	64.5	733
Roseville, Mich.....	64.2	96
Hartford, Wis.....	63.1	666
Vincennes, Ind.....	60.4	2,542
West Bend, Wis.....	59.6	440
Plattville, Ill.....	58.8	163
Geneva, Ill.....	57.6	494
Homewood, Ill.....	57.4	224
New Haven, Mich.....	57.1	59
Arlington Heights, Ill.....	56.3	491
Bartlett, Ill.....	55.9	239
Corliss, Wis.....	55.1	77
Round Lake, Ill.....	53.8	108
Roselle, Ill.....	53.8	137
Pt. Washington, Wis.....	52.9	406
Wauconda, Ill.....	52.6	119
Milwaukee, Wis.....	52.1	47,691
Lake Forest, Ill.....	51.9	1,201
Oswego, Ill.....	50.9	309
Highland Park, Ill.....	50.7	1,543
Algonquin, Ill.....	50	177
Cedarburg, Wis.....	50	191
Huntley, Ill.....	50	199

A Word on 'Phone Limit Time

Boil it down!

Next to the nuisance of the free lunchers comes the unspeakable long-winded tape-worm orator or talker over the telephone.

We would suggest to paste cards in your booth reading like this: "Time is money; cut your talk down to the time limit—five minutes—so others may have a chance to talk."

These 'phone monopoly-talkers should not use the 'phone for a day; if the thirty-fifth degree baseball fan wants to unload his baseball stuff, let him make arrangements with the magazines and start a series of "To be continued in our next" and Nelly ought not to be allowed to teach George the tango over the 'phone.

The telephone is the greatest medium for the transaction of business and should be used in a business-like manner, and not for gossip. Most people use the 'phone to save time, and if one telephone user strings out a talk to half an hour when one minute would be sufficient, this one nuisance often cuts thirty people off who have serious business to transact.

In the interest of better service, in the interest of the open door for your money producing 'phone, train, your 'phone patrons to cut out hash and to boil down their copious verbosity.—Wilhelm Bode-mann in *Journal of the National Association of Retail Druggists*.

Paid With a Smile

The record for long-distance telephoning on the Pacific coast is said to have been broken when Frank Swayne, a business man of Baker, Ore., talked for eleven minutes to Orange, Cal., thirty-five miles south of Los Angeles. The distance was 1,658 miles and the bill \$27.50, which Mr. Swayne paid very cheerfully, saying the conversation was worth many times the sum to him.

The Winter Months—Means by Which Comfort and Protection May Be Secured.

By Dr. Alvah H. Doty, Medical Director, Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company.

While many important advances have been made in matters relating to personal hygiene, but comparatively little consideration has been given the methods or means which may best be employed to furnish bodily comfort and protection during the cold weather.

Upon the approach of winter it is the custom, at least in this country, to make certain changes both in our under and outer garments. While the various details which are usually carried out in this direction may appear reasonable and logical, they are not altogether in harmony with modern sanitation.

In protecting against cold weather two factors are to be dealt with, the care of the body itself and the proper selection of clothing.

We have already learned in a previous article the importance of exercise, proper food and also the value of the cold sponge or shower bath judiciously employed as a means of securing a healthy condition of the body, thus providing a very formidable resisting power against the unpleasant conditions which may follow changes in temperature. The protection afforded by these hygienic measures is more valuable in the winter than in the summer, for during the former period they render important aid in retaining the body heat, and those who pay careful attention to this matter, particularly those in early life, are as a rule able to stand very marked changes in the weather with but little or no discomfort.

The selection of clothing for the winter months relates both to the under and outer garments. It would be difficult to enumerate the many fabrics and styles of underwear which are recommended for use during this season of the year. These various expressions of opinion represent rather individual experience and do not refer to a careful and general consideration of this subject. For instance, a young person in perfect health may be quite comfortable with but little or no change of clothing when the cold weather arrives, while on the other hand those who are disabled or are advanced in years can hardly be kept warm during the cold weather even when the heaviest clothing is worn. Therefore it is necessary to know what garments are best suited for general rather than special use.

It has been conclusively shown that wool offers the best protection against variation in temperature, for the reason that it is a very poor conductor of heat and cold. Cotton is probably the least valuable for this purpose. It is not strictly necessary that garments for winter wear shall be composed entirely of wool, for while a mixture of twenty-five per cent. of cotton does not materially lessen the value of wool as a protective agent, it renders it more agreeable to the skin, helps to retain better the shape of the garment and prevents undue shrinkage which will occur during the process of washing. Complaint is frequently made that woolen garments are very irritating to the skin. To a certain extent this is true, although it is very apt to be exaggerated; however, the woolen garments which are now offered for sale and which

usually contain a little cotton have in late years been so satisfactorily prepared that the irritating quality of this material has been reduced to the minimum.

While the character of the material used in winter underclothing constitutes its most important factor, the weight of the garment must also be considered; for this reason it is far more comfortable to have both medium and heavy weight undergarments. Except possibly in the extreme northern part of the United States the medium weight woolen underclothing is usually sufficient for all purposes, the heavy weight being reserved rather for long outside exposures, particularly when a person is not exercising.

It is also the general custom at the beginning of the cold season to substitute heavy outer garments for those of lighter material worn during the summer and fall.

In dealing with this subject we must consider that during the winter in built-up communities and under ordinary conditions, we remain indoors probably not less than twenty out of the twenty-four hours, either at home, in the office, workshop or elsewhere, and it is the common practice to keep the interior of these places well warmed—often unpleasantly so, the temperature sometimes reaching eighty or ninety degrees and seldom less than seventy-five degrees. This is almost summer heat, but without the advantage of the fresh air which is everywhere available during the warm weather, for during the winter the windows and doors which possibly may admit air are usually kept closed, and even under the best conditions the ventilation is very apt to be unsatisfactory. Under these unfavorable sanitary surroundings a person who is too heavily clothed and who is subjected throughout the day to a continued high temperature and with but little fresh air

is not only rendered uncomfortable, but the surface of the body is liable to become tender and moist and in this condition is particularly susceptible to the sudden change in the temperature which occurs upon leaving a heated room for the open air, for the temperature outside is often fifty to sixty degrees below that of the office or workshop. There is not the least doubt that many of the ailments which commonly affect us during the winter in the way of colds, sore throat, rheumatism, etc., are due to a lack of personal hygiene, improper dress and the defective means which are commonly employed in ventilating and heating interiors. The fact is, during the winter we usually wear heavy and uncomfortable garments indoors, often in a superheated apartment, largely for the purpose of protecting against the very short period of exposure in the open air, whereas the mode of dress should be made compatible with the interior temperature and special provision made for extra protection when we go outside.

Wool constitutes the proper material for the winter underclothes for both men and women, for there is no other fabric which offers such valuable protection against variations in temperature. These garments should be carefully selected, for unless care is taken one is liable to find out that they have purchased garments which may be composed largely of cotton.

So far as the outer clothing or suiting is concerned, there is no good reason why the same material and weight used in the summer should not be used for winter wear, provided proper underclothing has been provided. Those who have already adopted this more modern plan of winter dress have been thoroughly convinced of the comfort which it provides, particularly while indoors.



TOLEDO, OHIO, EXCHANGE TRAFFIC HEADS.

Upper row, left to right—Mayme Sullivan, chief toll operator; Rica Camper, chief instructor; P. E. Cowgill, traffic chief; Mollie Flynn, chief night operator; Mary Donahue, Collingwood chief operator.

Lower row, left to right—Mary Hartnett, East chief operator; Floras Brubaker, Main evening chief operator; Nellie Goodridge, Main chief operator; Nellie Flick, Forest chief operator.

In connection with this statement the question may very pertinently be asked, if the character and weight of the outer clothing is the same both in winter and summer, and only a change, in underclothing made, in what manner may a person be properly protected against the greatly reduced temperature outside? This is very easily and simply provided for in the shape of good serviceable overcoats or wraps, for by this means of dress a person may be made comfortable both within and outdoors. However, special attention must be given to the selection of this garment for temporary covering, for many who wear heavy suits pay but little attention to the selection of overcoats. These are often thin and of poor material, and offer but little protection to the wearer upon leaving a heated apartment. If possible, everyone should have more than one overcoat or wrap, or rather those of different weights, one of which may be used during medium cold weather and the other for excessively cold spells, for riding or for use during the evening. For the latter purpose nothing exceeds in value the great coat, commonly known as the ulster. These may now be purchased of excellent material at the clothing stores and at a reasonable price. They are made to cover almost the entire body and furnish protection against almost any degree of cold. This same method of protection is applicable to the feet, for practically speaking there is no such thing as a water or damp-proof shoe, and protection against falling snow or that which has melted cannot be secured by heavy shoes or woolen stockings, but only by over-shoes which in many ways are of great comfort during cold or stormy weather.

The means of protecting the body during cold weather may from a modern standpoint be summed up as follows: Garments made of wool or chiefly of wool should be used both by men and women as underclothing; so far as the suiting or outer clothing are concerned, the material and weight used in the summer are also applicable for winter wear. The protection against the greatly reduced temperature outside is best cared for by the use of proper overcoats or wraps of various kinds, made especially for this purpose. This arrangement is also far more convenient for those who exercise in the open air, for they are not burdened with excessive weight. Some who frequently exercise in the open air during the winter discard the overcoat entirely; however, this is rather a dangerous procedure and can be safely followed only by a few.

Other important factors which must be considered in connection with bodily protection and comfort during the winter relates to the proper heating and ventilation of apartments. A temperature of seventy-five degrees is usually sufficient for all purposes of comfort and health. Above this the heat is apt to become more or less enervating and relaxing; below this temperature the room is apt to be uncomfortably cool, particularly to those of sedentary habits. In addition to the regulation of temperature means should be taken to secure a constant supply of fresh air.

There is nothing in the means of protection above referred to which is difficult to carry out or comply with. Still their non-observance is largely responsible for the increased mortality and sickness during the winter months in connection with certain diseases, for those who pay but little attention to personal hygiene and who from various causes,

many of which are preventable, become specially susceptible to the variations of temperatures, are more often victims of pneumonia and other pulmonary affections or are frequently affected with colds and sore throat.

Opening at Anderson

The "open house" at the Central Union exchange in Anderson, Ind., November 13th, 14th and 15th, was a complete success. Hundreds of people accepted the invitation of Manager C. E. Lee to inspect the exchange.

The rooms were decorated with potted plants. On entering, each visitor was presented with either a carnation or a "smoke." A corps of ushers, consisting of the following plant employees, escorted the visitors through the building: M. E. Williams, Burrell Wells, W. C. Parker Leatherman, Clyde Talmage, George

showed a great interest in the method of answering calls by the operators and were particularly interested in the operation of the calculagraph, many making the statement that they did not know that there was such a device for timing the long-distance calls. As New Castle has the reputation of being the "city of roses," the visitors were given roses as souvenirs instead of the usual carnations.

Incidentally, both days were good days for collections and new contracts, as many of the patrons took occasion to visit the exchange, and at the same time pay their telephone bills, while others made it a point to order telephones and sign contracts.

The visitors generally expressed themselves as being very favorably impressed by their visit to the exchange and Manager Monticue states that much good will result.



OPERATING ROOM AT ANDERSON, IND., DURING "OPEN HOUSE."

Rush, William Vess, Charles Bagley and Leon Louiso.

The members of the traffic department, in charge of Chief Operator Mary Schies, contributed greatly toward the success of the opening. The operators attended strictly to the switchboard and the visitors marveled at the absence of confusion, in fact, an impression that the operating room of a telephone exchange is a noisy place was pretty thoroughly dispelled. Marie Kelly, Loretto Schies, Roxie Lloyd, Nelle Baker and Thelma Toms attended the door and assisted in welcoming the guests. After the trip through the building each lady visitor was presented with a copy of the Pioneer edition of the BELL TELEPHONE NEWS.

Open House at Newcastle

Manager L. L. Monticue held open house at the New Castle exchange on Thursday and Friday, December 11th and 12th. The exchange had been very prettily decorated with flowers, festoons, etc. Invitation has been sent out to the subscribers and notices in the papers invited the general public of New Castle to visit the exchange.

On both days the attendance was very large and the representative people of New Castle took occasion to look into the workings of the exchange. They

Open House at Elwood

Thursday and Friday, November 13th and 14th were "public days" at Elwood, Ind. Manager Porter extended a cordial invitation through the newspapers to the public in general to be shown through the exchange. From 200 to 300 subscribers and their friends were shown through during each day.

They were first taken to the plant department where their attention was called to the workings of the power board, charging machines, storage batteries, wire chief's desk, cables entering office, the guides explaining the protection on terminal rack, mentioning that there was the same protection at the cable boxes and subscribers' stations. On entering the operating room they were shown the switchboard wiring, then the operators at work, which seemed to be of the most interest to all, explanations being made as to how the calls were handled. The fact that there were 11,000 to 12,000 calls each day was a great surprise to most of the visitors.

After explaining the timing of toll tickets, the guides conducted the visitors to the public office, where they were presented with carnations as souvenirs. The visitors expressed themselves as highly pleased with the entertainment, and it is believed that much good will result.

The new central office equipment in the

former quarters of the Delaware and Madison Counties Telephone Company is now finished, and was cut over December 13th. This was the final step in the work of providing Elwood with a modern single telephone system.

Opening at Muncie

Fully 3,000 people attended "opening days" at the Central Union exchange at Muncie, Ind., November 21st and 22d. On the north side of the building was hung a fifteen-foot sign inviting visitors to come. The rooms were an attractive picture. Large palms stood at the foot of the stairs. At the head was one of the latest large Bell advertisements: "Get the world through your telephone." The landing was covered with palms. Among the interior decorations were flags, large bells and a portrait of Theodore N. Vail.

Misses Green, Fox and Zelerbach were the reception committee. Great interest was manifested by the public and the employees who acted as guides and explained the operation of the exchange did very effective work.

At Peru, Ind.

The Peru manager invited the public to visit the local exchanges on Saturday, November 15th. Neat invitations were distributed to the residents of the city and mailed to rural patrons.

Although the weather was disagreeable 879 visitors responded to the invitations. Blue Bell needles, carnation pinks and cigars were given as souvenirs. It is believed that both the employees and the patrons were benefited by having the telephone users visit the exchanges.

At Auburn, Ind.

One-tenth of the population of Auburn, Ind., visited the Central Union exchange in the afternoon and evening of November 21st. The exact number of visitors was 415.

Manager S. E. Van Fleit was in general charge and was assisted by Cora Kenestruck, chief operator, and Mary Richards,

night chief operator. As the *Auburn Evening Star* expressed the outcome, there are now 500 or more people in Auburn and vicinity who possibly could pass a better examination for an operator's position than they could before the demonstration. After the opening, Manager Van Fleit invited the force to a banquet in the Masonic Hall. E. O. Fifer, South Bend traffic chief, was one of the guests.

A unique feature of this banquet was the fact that every member of the force was present, the switchboard being attended during the time by Mrs. Carl Davidson, Rossie Douglass and Ruth Snyder, former operators.

At Kendallville, Ind.

Manager A. R. Otis, of the Central Union exchange at Kendallville, Ind., issued invitations to the public to visit the exchange from 2 to 4 p. m. on November 13th.

Each of the 250 who responded was shown the work in the operating room by Mrs. A. L. Pierce, chief operator, and her assistant, Ethel Boszor. The plant department was also visited and the workings of the different apparatus were explained by Chief Inspector F. O. Baad.

Souvenirs of carnations and bon bons were given to the ladies, while each gentleman received a cigar.

The visitors consisted of subscribers and non-subscribers as well, and each left with a more thorough knowledge of the routine work in a central office.

At Shelbyville, Ind.

Residents of Shelbyville, Ind., were given the opportunity of seeing the inside workings of the Central Union Telephone exchange on November 20th and 21st. Manager Benjamin B. Earley did the honors, greeting the guests and supervising things generally. On the first day of the opening the *Shelbyville Democrat* said: "A look into the interior of the exchange for several minutes with the aid of the efficient and accommodating employees, would increase one's knowledge of the plant a hundred fold. It is

a treat, indeed, for the people of the city and county and everyone that possibly can spare a few minutes, should take advantage of the treat. It is something that does not occur every day in the year.

"Souvenirs are given to each visitor upon entering the exchange. Beautiful carnations are presented to the ladies, while the gents are given a fine smoke. Mr. Earley was highly pleased with the splendid attendance today. A record crowd is expected tomorrow."

Stories Heard at Terre Haute

During the recent "open house" at Terre Haute, Ind., a number of curious questions were asked by visitors. A gentleman of large proportions, beaming expression, and with hair parted with the utmost precision, asked the supervisor with the preface, "If it's a fair question," what hours the operators worked.

"It's just this way," replied the supervisor, "the girls work one day in the morning and evening and the next day in the afternoon; it is what we call a split-trick system."

"Well, well," replied the jovial one, "quite a coincidence, quite a coincidence; you see it's just the same way with us bartenders."

A group of ladies was being conducted through the building. They had shown a great deal of interest as the different parts of the apparatus had been explained. Passing from the operating into the operators' rest room a row of twenty or thirty lockers met their view. One lady, who on several occasions had expressed her opinion as to how this and that worked, ventured the remark: "My, look at all those long-distance booths."

Panama-Pacific Exhibit

The growth and development of telephony and telegraphy and all that is most interesting in the two arts will be shown to visitors at the Panama-Pacific Exposition in San Francisco in 1915. The American Telephone and Telegraph Company and Associated Companies will erect a building within the Palace of Liberal Arts. In this building the growth of the business since its inception will be shown in five-year epochs. In one of the inclosures there will be delivered a series of lectures, illustrated by motion pictures and other views, explaining and describing many of the interesting features of world-wide telephone and telegraph service.

Power of Association

An amusing story, emanating from Plant Accountant C. B. Snyder's office in Columbus, Ohio, has been going the rounds of Ohio plant men.

The closing of the Ohio flood estimate "CU-13042" was the cause of many hours of overtime and much brain fag in the plant accountant's office. It is reported that one of the office force took a Sunday evening off and went to church. It was a special service and the minister called on members of the congregation for hymns to be sung, designated by number.

The telephone man had embraced this exceptional opportunity to get a little sleep. He woke up dazed when the minister said: "We will now sing a hymn, the number of which will be given by Brother G—— (our clerk). Brother G—— said, loudly and clearly, "Hymn 13042."



OPERATING ROOM DURING "OPEN HOUSE" AT ANDERSON, IND.

Poles

Description of Interesting Processes in Their Production from the Forest to the Line.

The production of telephone and telegraph poles, and their distribution to the telephone, telegraph and electric light and railway companies throughout the United States and Canada which is a considerable undertaking and one covering a wide territory is made the subject of a leading article in the December issue of the *Western Electric News*.

The principal kinds of wood used for poles are as follows:

Northern white cedar, found most abundantly in the northern parts of Michigan, Wisconsin and Minnesota, and in smaller quantities in the territory in the same latitude, extending eastward through Ontario and the northern part of Maine to the Atlantic coast.

Western red cedar, an upland product found growing in Idaho, Washington, Oregon, Montana and British Columbia.

Chestnut, largely used in the east, and found in the Atlantic coast states from Massachusetts to North Carolina, inclusive, and in parts of Tennessee, Kentucky, Pennsylvania, Ohio and Indiana.

Yellow pine and juniper are used to some small extent throughout the south, where they are found. Of these four woods, northern white cedar is the most largely used, and for a great many years has furnished the principal supply of poles.

The white cedar found growing in the Lake Superior region grows in wet, swampy land; on the upland is found pine, spruce, hemlock, etc. As the cedar land forms the smaller part of the forest, it would obviously be out of the question to cut this wood alone. It is therefore necessary, in order to keep the production cost as low as possible, to cut off the timber clean, making the cedar into poles, posts, ties and shingles, and the upland timber into saw logs. The pole company usually sells the saw logs at once to saw mill operators, from whom in turn it may buy odd lots of poles.

The first step in a lumbering operation is the selection and purchase of timber land or "stumpage." Stumpage is a term used where the timber *only* is owned, with the privilege of removing it within a certain number of years. Before a purchase of a given tract is made, the buyer usually has an estimate made of

the amount of timber the land will produce. This is done by a man called a "cruiser" or "land looker." He is given the description and a map divided into townships, sections and quarter sections. Upon reaching the vicinity of the timber, he searches until he finds a "blaze" on a tree, the marking on which will indicate it as the corner of a certain section. When the cruiser has located his land he proceeds at once to make an estimate. This is usually done by counting the different kinds of trees along each side of a "forty" (forty acres) and then computing from this the number of poles, posts, ties, saw-logs, etc., it will produce.

After the purchase of a timber tract comes the location of the camp. Great care is usually given to this, as the camp must be easy of access and so located that it may be used as a base from which as large a territory as possible may be lumbered.

The lumbering operations are in charge of a woods superintendent, or "walking boss," as he is usually called, from the fact that he generally has charge of several camps, traveling from one to another. Each camp is in charge of a foreman. The rest of the crew is made up of a cook, "cookee" (cook's helper), chore-boy, blacksmith, handy man (wood worker), barn boss, teamsters, sawyers, cedar makers, swamper, cant hook men, etc.

After the camp is completed, which is generally about the middle of August or first of September, the real work begins. First comes the establishing of main logging roads. As soon as the route of the road is located, by blazing the trees, the swamper are set at work cutting the trees and underbrush to a width of at least twenty-five feet. All stumps and roots must be removed, inequalities of the ground leveled, swampy places ballasted with poles and all made as level and smooth as possible. Squares are cut at intervals alongside the main road in which are placed two long timbers or skids, and iron-wisps, for the reception of the poles and logs cut nearby. From these skidways narrow trails are cut to permit the hauling or skidding of the poles and logs direct to the skidway, where they are piled or decked, very often twenty or thirty feet high.

While the swamper have been busy with the roads, the rest of the crew has not been idle. The cedar-makers are busy early and late cutting the beautiful evergreen cedars and making them into the commodity for which they are best suited. The main object is to get a satisfactory pole, but if the tree will not do for this purpose, it is converted into some other cedar product, such as posts, piling, railroad ties or shingle timber. Very often, after a pole has been cut, the balance of the tree may be worked up into some of these other articles. Cedar-makers usually work alone, using a "one-man" saw for cutting the timber. The poles are generally finished complete to specification in the woods—that is, the bark is removed, the butt and top cut square and all knots and limbs trimmed smooth. Occasionally, however, if the hauling season is prolonged into the spring, a large number of trees may be cut as rapidly as possible and hauled to the landing yard before the breaking up of the roads, the work being completed at the yard.

The sawyers have also been busy meanwhile with the work of cutting the pine, hemlock, spruce, beech and maple into saw-logs. The smaller hemlocks are also made into railroad ties, while the spruce is cut into suitable lengths for pulp-wood to be used in the manufacture of paper. A few years ago nothing but the best of the timber was taken out, but the rapid depletion of the forests and the growing scarcity of good stumpage, with a consequent rise in value, has brought about a change, so that today after a piece of land is cut over, practically nothing of timber value is left.

The camp life runs along about the same until extreme cold weather sets in, usually about the end of December, when the hauling season begins. Before active work can be started, the roads, which were so carefully prepared a few months back, must be given a thick coat of ice. If any considerable quantity of snow has fallen, it is either plowed out or packed down, after which the sprinklers, large tanks, holding seventy-five or eighty barrels of water, placed on sleighs, are hauled over the roads and the water allowed to run out in two streams at about the places where the sleigh runners will naturally come.

The sprinklers are kept at work until several inches of solid ice have been formed, after which comes the "rutting."



A GANG OF SAWYERS.



A TYPICAL CEDAR POLE MAKER.

This involves the cutting of ruts or grooves in the ice roads in the exact spot where the sleigh runners will come, and is done with a machine made especially for this work. The object of the rut is to keep the heavily loaded sleighs from slipping off the solid ice into the soft snow on either side.

Within the last few years a steam log-hauling engine has been perfected. This engine is built along the lines of a loco-

They are located at various convenient places throughout the cedar territory. The Western Electric Company's present shipping facilities comprise over thirty yards for the handling of white cedar, scattered throughout Michigan, Wisconsin and Minnesota, and twenty-five yards for handling western red cedar, in the states mentioned at the beginning of this article. This number includes yards at Oakland and Los Angeles, Cal. The largest

Western Electric Developments in 1913

During 1913 the Western Electric Company maintained the high standard it has established in the past, by contributing a number of new and important developments in electrical apparatus.

The following outlines those developments in telephone and power apparatus which are most worthy of note.

Telephone Apparatus

Mine Telephones

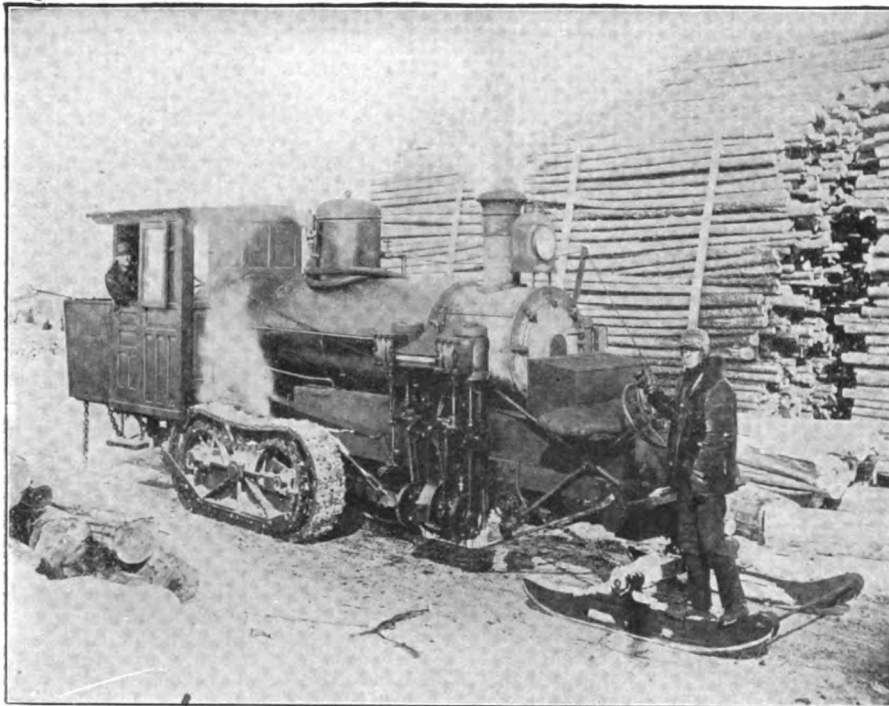
Probably the most important addition to the work which is being carried on in mining districts to bring about safety for the workers has been the perfection of a mine rescue telephone equipment. Rescue crews, although equipped with oxygen helmets and various safety appliances, have heretofore been considerably hampered in their work by the lack of means of communication with the outside, in fact, rescue gangs have been lost, as in a recent case at Dawson, New Mexico, for that very reason.

The mine rescue telephone equipment consists of a transmitter which is arranged to fit the throat of the helmet man, thus permitting of the transmission of the sound waves through the walls of the throat, as the mouth is needed for the breathing in of the oxygen. A head receiver is also furnished, the combination of receiver and transmitter being held in place by a leather harness. The helmet man also carries one or more coils of wire, which connect to the telephone equipment used by the directing party at the mouth of the mine. This wire pays out as the rescue gang advances.

Railway Train Dispatching

A new test board for way station service, known as the No. 2 type, has been developed to meet the need for a compact and flexible testing and patching equipment. Two sizes are available, the No. 2-A, which is arranged for two metallic circuits, and the No. 2-B, which is arranged for four metallic circuits. The test boards are so designed that all line terminals are made accessible for inspection by merely unhooking the outside cover, and all jack and key terminals by unhooking the apparatus board. The use of these new test boards provides a simple means for minimizing service interruptions.

A series of cordless jack boxes has also been developed for block telephone and telegraph service. These are known as the No. 385 type, for a maximum of



STEAM HAULING ENGINE FOR USE ON ICE ROAD.

motive and will haul a train of eight or ten loaded sleighs at a speed of about four miles an hour. It will take the place of fourteen or twenty horses and six or eight men.

When the poles are received at the landing yard, if a sufficient number are delivered there to make a good assortment, they are sorted into the different standard lengths and sizes and held for shipment direct to customer. But if there is only a small number, they are loaded and shipped by rail to some of the large concentrating yards. These yards are maintained for the purpose of storing stocks of poles where they can be sorted and placed in piles, each size by itself, ready for shipment as needed.

yard maintains an average stock of 125,000 poles.

Since 1904 orders have been placed with the Western Electric Company for 4,500,000 cedar poles, about 1,000,000 chestnut poles, 40,000 juniper poles and 125,000 yellow pine poles—about 50,000 carloads. To produce these poles, on a basis of an average of forty poles to the acre, which is an approximate yield, would require a forest of 135,156 acres.

As telephone and telegraph lines are built with about forty poles to the mile, the total output during the last nine years, therefore, is sufficient to build a pole line 143,750 miles long, or more than half way to the moon.



READY FOR DINNER IN A LUMBER CAMP.



A GROUP OF LUMBER JACKS.

three lines; No. 386, for a maximum of six lines; and No. 389, for a maximum of twelve lines. They are used to connect the operator's set to any one of a number of lines passing through the way station, by means of a switching plug which is inserted in the jack connected to the line over which the message is to be sent.

The boxes are of a simple and solid construction, with heavy insulation for the metal parts. The jack boxes for telegraph service differ from those used on telephone lines only in that the jacks have additional contact springs.

Intercommunicating

The hand-set inter-phone completes the line of inter-communicating telephones. This type of instrument has transmitter, receiver, and ringing button, all mounted on one handle. When not in use, the hand set can be placed in any position without causing waste of current, as the current is shut off automatically when the pressure of the hand is released. There are two general styles, the flush and the non-flush. The former makes use of a wall box with a face-plate, the same as the combination used for electric light switches, so that nothing projects beyond the wall but the hand set itself. For old buildings, where it is inconvenient to install the flush type wall box, there are non-flush boxes available.

The hand-set inter-phones are interchangeable with the wall and desk types for any one system. The system known as No. 16, requiring only two wires, is especially adapted to residences or hotels where annunciator systems are already in operation.

Switchboards

Switchboard development work has been confined to changes calculated to improve the old as well as the more recent types. The work has centered upon the standardization of switchboard frameworks and parts, and applies principally to the magneto non-multiple switchboards.

A standard local cable, which is the cable connecting the various coordinate parts of the switchboard, has been devised, as well as a standard key shelf which has a greater cord capacity than former types, so that more than the usual number of cord circuits can be furnished, as required by operating conditions. A



SUPPLY TANK AND SPRINKLERS FOR MAKING ICE ROADS.

standard method of mounting signals has also been instituted so that line and supervisory signals are now mounted on the same mounting bars. This results in a board having a more uniform appearance and increased flexibility, at the same time making it possible to furnish single or double supervisory circuits, transfer circuits, etc., without any changes having to be made in the framework.

The standardization of framework and other switchboard parts greatly simplifies the problem of quick deliveries. It is now possible to make switchboard shipments in two to six days after the receipt of order.

Miscellaneous

Repeating Coils

Two new repeating coils have been developed for phantom circuit telephone work. These coils, known as No. 46-A and No. 47-A have the same mechanical and electrical characteristics, and differ only in that the former has two coils on a single base, while the latter is mounted singly.

Their efficiency is such that transmission over a phantom can be obtained about fifteen per cent. farther than over

the original physical circuits, while the loss in the repeating coil amounts to less than two-fifths of a mile of No. 19 gauge cable, per coil. The loss on the phantom circuits is only one-fifth of a mile. These are lower values than will be found in any other phantom circuit repeating coil on the market.

Metal Telephones

A new type of metal telephones for central battery use has been developed. This is a semi-flush telephone known as the No. 1357 type, and is intended for the same class of service which the non-flush No. 1333 telephone is designed to give. This includes single party, two-party selective, or four-party semi-selective signaling and harmonic selective signaling. Provision is made for an instruction card on the face of the telephone.

A semi-flush desk set box, known as the No. 358, has been developed for use with desk stands, and contains the ringer, condenser and induction coil.

Both the Nos. 1357 and 358 types are finished in the famous Western Electric durable black.

Transmitters

The use of insulated transmitters is being extended as rapidly as possible, to all types of telephones. Heretofore the metal frame of the transmitters has been used as one of the conductors, while the cord attached to a small binding post in the interior of the transmitter has served as the other. The insulated type is inherently a safer instrument to use, as the danger of shock is eliminated.

Desk Stands

Following the introduction of the one-piece lug holder which added so much to the graceful appearance of the No. 20 type desk stand, a still further improvement has been effected by the development of a single piece switch hook. This new switch hook is produced by unique punching operations which have been devised for the purpose. The new hook has also been instrumental in making a reduction in the weight of the stand.

Batteries

A new battery—the Red Label Blue Bell—has been developed for general utility work. It is of the high initial amperage and low resistance type and adapted for use where there is not a constant drain



CAMP SCENE IN CEDAR FOREST.

on the current for extended periods of time. Its principal uses are for call bells, railway signaling systems, annunciators, toys, industrial gas engine work, and all slow speed ignition service.

Power Apparatus

Vacuum Cleaners

Additions have been made to the line of Western Electric Sturtevant Vacuum Cleaners so that there is now a size to meet practically every requirement.

A horizontal type of stationary vacuum cleaner has been substituted for the vertical in certain of the sizes. The ½-HP and 1-HP cleaners retain the vertical type of construction, while the sizes exceeding 1-HP are now made with a horizontal motor-fan combination and a vertical dust collector. This serves to increase the number of bearing points for giving support to the shafting, and eliminates successive vibration.

Chicago Man Captures Thief

J. N. Cummings, a Chicago toll repairman, caught a wire thief "red-handed" on the early morning of December 22d.

The wire stealing on Chicago suburban toll lines had become so annoying that the Suburban Plant Department decided that something must be done. A reward of \$250 was hung up for anyone who would capture the midnight marauder who was causing the department so much lost sleep. Mr. Cummings, spurred on by his zeal in the service as well as the hope of winning the reward, arranged to be notified whenever trouble on the lines was detected, no matter what the hour.

The toll lines were tested at fifteen-minute intervals during the night and at 1:10 a. m. on December 22d, Toll Testman Johnson noticed trouble on the Chicago-Desplaines No. 2 and No. 3 and was convinced by his test that someone was cutting the wires. He immediately notified Toll Repairman Cummings at his residence, and Mr. Cummings immediately started out on his motorcycle. A neighbor had agreed to assist Mr. Cummings in the capture of wire thieves if necessary. The neighbor also mounted the motorcycle and the two rode like demons. Upon reaching the Norwood Avenue cable pole, Mr. Cummings made some tests on the line and was satisfied that the men were working but a short distance away. The motorcycle was left standing and the two men walked quietly toward the point where they believed the wires were being cut. They had not proceeded far when they discovered two men coiling up wire on the ground. With a bold front they rushed up with their guns and succeeded in capturing one of the men, but the other broke away and ran through the fields, evading capture and safely escaping bullets. The captured thief was taken to the Irving Park Police Station.

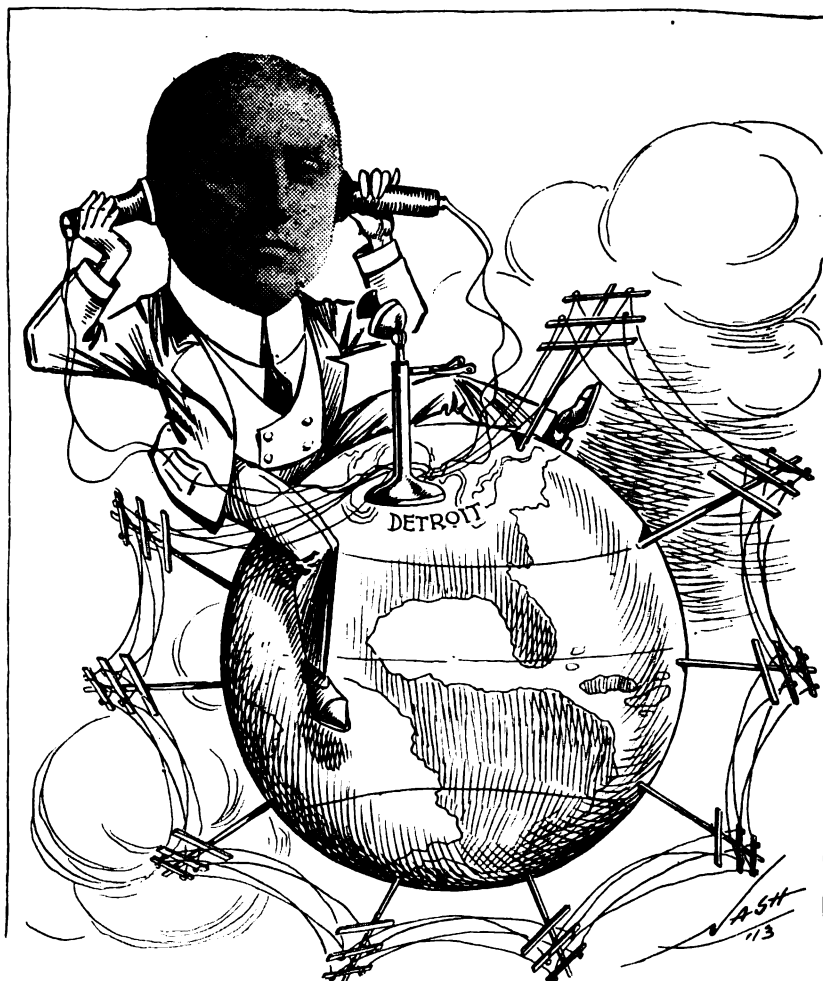
Twenty-eight spans of No. 104 copper wire were found cut at this location and with this convincing evidence, Mr. Cummings and his assistant went into court and on their testimony the captured man was fined and given a prison sentence. The \$250 reward was duly paid to Mr. Cummings and he says it was the best Christmas present he ever received.

Dinner for "Bachelor Girls"

About 115 operators sat down to the Thanksgiving dinner given by the traffic department for the "bachelor girls" of the Detroit exchange. The "bachelor girls" are the young ladies whose families live at a distance and who therefore board. The dinner, as two guests from Indiana remarked, couldn't have been beaten by a first-class hotel caterer.

Arthur von Schlegell.

General-Manager der Michigan State Telephone Co.



Det, der des „Blitzes“ Kraft erkennt,
Durch sie den Schall in Draht gebannt —
Der's Telefon erdacht —
Hat der Kultur der ganzen Welt
Ein neues Horoskop gestellt,
Ein Wunderwerk vollbracht.

Elektrisch trägt von Ort zu Ort,
Seit Jahren das gesproch'ne Wort
Sein Wunderapparat!
Niemand hat je Erfindungskraft
Die Welt so gründlich umgeschafft,
Wie Graham Bell es tat.

Und der die Welt an seiner Statt,
Zum Schemel seiner Füße hat —
Herr Arthur von Schlegell
Vertritt im Geist und in Person
Im Staate hier das Telefon
Von Alex. Graham Bell.

Und jußt von hieraus von Detroit,
Er einem großen Teil gebeut
Vom Bell'schen Weltkittem.
Und diesen Herrn von deutschem Reis
Hier vorzuführen dem Feiertreis
Ist uns sehr angenehm.

CARTOON OF GENERAL MANAGER A. VON SCHLEGELL, WHICH APPEARED RECENTLY IN A LEADING GERMAN NEWSPAPER OF DETROIT.

Complaint Dismissed

The following letter from J. L. Riley, secretary of the Indiana Public Service Commission, was received at New Castle, Ind., and is self-explanatory:

"Your letter stating that the service of the Central Union Telephone Company of your city has improved and that it is now satisfactory, and practically all of the patrons are satisfied with said service, received.

"Thank you very much for your interest in this matter. We will now dismiss the petition filed by the petitioners of your city in this matter.

"It is a nice way to solve a problem

of that kind. It is an economical way, and if the public can get the service that they ought to have without a trial, it is always best to get by without the expense of a trial.

"I congratulate you and your friends on the position you took in this matter and the sensible ending of the same."

Chicago Official Honored

A. R. Bone, commercial superintendent of the Chicago Telephone Company, was elected president of the Electric Club of Chicago, at the annual dinner of the club at the Sherman House, January 5th. Other officers elected were: Vice-president, William C. Berry; treasurer, F. W. Harvey, Jr.; secretary, Howard Ehrlich.

Daily Plant Maintenance and Management

By J. P. Brennan, Supervisor of Toll Lines and Exchange Equipment, Wisconsin Telephone Company.

The question has often been asked, should the men who manage and maintain a telephone plant be more competent telephone men than those who originally constructed it? When a full and comprehensive view of this question is taken, there can be no doubt but that to manage properly and maintain properly a telephone plant, the men that do it must be competent construction men, and more. When a telephone plant is constructed and its operation begins, from that moment on the maintenance work also begins. There must be continual work to keep it in operation, as numerous known and unknown elements are constantly working its deterioration.

Proper maintenance means to stop in some cases and delay in others to the utmost this deterioration. Therefore, should slipshod maintenance be the rule or, merely the clearing of troubles that are encountered from day to day, the plant will very soon get into such a state of deterioration that, instead of any maintenance being done by the force that is intended for the plant maintenance, the men merely become "trouble shooters" and before long trouble makers, in more ways than one. We will talk about this type of so-called telephone men later! The men that we like to talk of are the ones that leave a trail of good work after them each day.

The reason that a good maintenance man is a good construction man and more is because he has a sense of duty; he makes himself proficient by study; he has to cut out his own work to a more or less extent each day, if he does any maintenance work. If he is called upon to clear troubles he will clear them in such a way that he will improve the parts of the plant that he comes in contact with; he will advise his superior, should he see anything that may affect the service, which for lack of time, or by his own effort, he is unable to correct. If, in the clearing of troubles, it becomes necessary to open a cable terminal box on a wet, or damp day, he will protect it in such a way that no dampness will get to the terminals or wires in the box. He will make note of its condition and report defects should he notice any, such as leaky roof; bottom sagged; not snow proof; cracks in the sides, or doors will not close tightly, due to warping. He will straighten out bridle wires should they be disarranged. He will never open soldered joints in bridle wires unless he is prepared to resolder them in as good or better shape than he found them. He is always prepared for this class of work when he goes after troubles. He will never make a test cut in the insulation of twisted pair outside distributing wire, unless it is made for the purpose of repairing it. If he does construction work he always does it as directed by the specification covering the work. This may mean the setting and guying of poles, putting on crossarms, stringing wire, either bare or No. 17 two-conductor. In putting up No. 17 two-conductor drop wires this wire is always handled carefully by him. He knows the importance of keeping the insulation from getting damaged or broken from careless handling. Some of these conditions are

caused by letting it lie on streets so that wagon wheels pass over it, improper tying and stringing in improper lengths, as mentioned in specification No. 5003, page 123, and supplement "A" to same specification, page 6. He will never terminate this wire on a single-groove knob where it will be under strain. If this wire has to pass through trees he will see that it is properly protected by one of the methods shown in specification No. 5003, diagrams No. 117 and No. 129, and explained on page 118 of that specification. When he goes after a case of trouble that is caused by trees, instead of repairing the wire and placing it in the same position through the trees (if he cannot get permission to trim them), he will change its location and put it up in such a way that no more trouble will be encountered from the trees. This is where he outshines the construction men that originally put this drop in service. When he goes after troubles on bare wires he will always go prepared to pull slack, replace a few broken insulators and pins. He is always on the lookout for plant defects as he travels from place to place after trouble. He not only finds the troubles that he is after, but he locates other defects that in future may cause troubles. He makes notes if he cannot stop to correct them. After he replaces a defective leaky drop he will ask himself what was the cause of the trouble. He will look for the defects in the wire, and while he cannot find any that can be seen from the outside, he will remember that this drop was strung from the pole to the house very taut, and that the drop was in service for a couple of years and that the rubber insulation has been constantly under a heavy strain and has become cracked and broken in various places, which would not occur if the tables for sag in this type of wire were followed, as given on page 119 and page 6, supplement A of specification 5003.

In proper maintenance, all improper construction that would affect the giving of good telephone service, together with all defects that will develop from known and unknown causes, as well as natural decay, are met and conquered by the good maintenance system and men. A good maintenance system means nothing more than good management, which, after all, is merely good business sense, with a reasonable amount of industry. There are certain essential features that cannot be overlooked in the building of a proper maintenance system. These essentials cover plant records, such as the dates that poles, cross-arms, wires, cables and all major parts of the plant were put into service. This record should show the date each pole was set, whether pole butt treatment of any kind was used; if crossarms were put on poles the record should give the date and sizes of crossarms; if aerial cable was put in service the number of pairs, how it was suspended, whether in metal rings or marlin hangers, and other data, such as whether the messengers and metal rings were protected with "Durable Metal Coating," particularly where messengers, cables and guys cross steam railroads or are in localities where they are likely to be damaged by acids or bituminous coal smoke.

The plant records will contain this information, as well as a correct and up-to-date cable-pair record. These records will be made use of from time to time by the good maintenance manager. He will, when he gets a report from his force, that in several places the marlin hangers are broken from the messenger, that support cable No. 1, without delay look up the records of this cable and find that cable No. 1 is a 200-pair No. 22 gauge cable, that it was put in service in May, 1906, and that it was suspended in marlin hangers for its entire length. He will know that after seven years' service marlin hangers are no longer safe for the suspension of 100 or 200-pair No. 22 gauge cables; that should a heavy, wet snow or sleet storm be encountered, these cables are likely to be stripped from their messengers for their entire lengths. He will make arrangements to rehang these cables in the latest and most approved methods. He will also notice in the record (if properly kept) that there were several lateral aerial cables of various pairs capacity below fifty pairs, No. 22 gauge, connected into the 100 or 200-pair cables that were put in service at the same time as the 100 or 200-pair cables and that they were also suspended in marlin hangers. He will (except in very exposed localities) know that he can defer the rehangings of these smaller cables for a couple of years, and that the work can be done from time to time by taking a span at a time, as the time of his force will permit, and as the old marlin hangers fail. The other plant records that he has kept will help in many ways in the economical management of the plant maintenance. If he is a new man at the exchange, and such records were not left to him by his predecessor, he will not be content until he has his job well in hand by going after and getting them. His maintenance force will soon learn through him that nothing but the standard class of work must be done, and that he has no use for poor work. He will not have the so-called maintenance man that we have heretofore mentioned around; he knows this type of man better than the man knows himself. He knows that if he employs him at clearing troubles there will be a trail of defects left behind him everywhere he goes; that instead of having one job of work done well to his credit each day he will generally have a number to his discredit and in harmony with the other elements of destruction which, if allowed to go unchecked, will, within a short time, affect the service and make trouble for everyone connected with the service, including himself. "Enough said—get rid of him." The manager or maintenance man knows the value of having one or more good maintenance jobs done each day, which, if kept up, will result in 300 or more during the year, which will gradually cause the number of exchange troubles to decrease and result in giving a reliable telephone service that the subscribers are pleased with and willingly pay for. His force and himself are constantly on the lookout for plant defects, which are kept track of in his exchange maintenance book, or what the A. T. & T. Company calls the "Plant Log Book." He arranges to care for the defects in the "Wisconsin Way" by having a "wash day" at his exchange each week, when all the defects reported and not cared for from day to day will be cared for. He has the system and the backbone to keep it going, and you can find him by his fruit, as "figs don't grow on thistles."

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

Taking Stock

Again the business world has been taking account of stock and balancing accounts. Nineteen-fourteen lies before a path untried, but before starting out on the journey, a look backward must be taken over the well-worn road over which we have come.

The business man must ascertain the gains and compare the growth of profits with the growth of his business. He must also compare the amount spent on new equipment with the amount lost in wear and tear, the depreciation of the plant as he calls it.

To the up-to-date business man the result of the yearly inventory is not a surprise. His accounts and stock reports have been kept so accurately that he practically knows every day where he stands.

Have the girls who read these pages taken stock at the end of 1913? Some of us keep a kind of tab on ourselves every day, but probably the most of us need to have an annual survey and a general stock taking to find just what our gain or loss has been—what our worth is to ourselves and to others—what have been our best investments, and what our capital is for the coming year.

Perhaps it would be well for us if we had some expert accountant, who would see us with unbiased judgment and let us see ourselves as we really are. For it is very difficult to read our own ledgers and put a true value on our assets.

In the first place, what did you have on hand January 1, 1913. Cash on hand—perhaps not any. Possibly it had all gone into the equipment, for in taking stock of yourself, the capital is in the education and training which has fitted you to do work in the world. What stock had you on hand last year? Good health was one of your assets, good school training, a clear head and clean conscience.

Is your stock now more valuable, have you added to your bodily strength by right living, have you added to your knowledge by experience, have you used your brains and so gained insight, have you a still finer sense of right? What is your capital now for January, 1914?

In taking stock of character you must find whether you have made good investments, for the gains will always be the largest where the most has been put to service. Unlike some business investments, there is no risk in putting your capital into the business. It will come back at the end of the year, with a big interest added thereto.

So, as 1914 spreads out the clean ledger, put down the net gain of the year. It may not have a very big cash value, but if you can add character that has been strengthened by good honest work and faithful performance of duty, if you have been worth more to your employers than you have been paid, if your stock

has not depreciated by misuse, you can safely start on another year with perfect confidence that this year in your life will bring in good returns, which will make a fine showing when the annual report is again written.

Why do we heap huge mounds of years

Before us and behind,

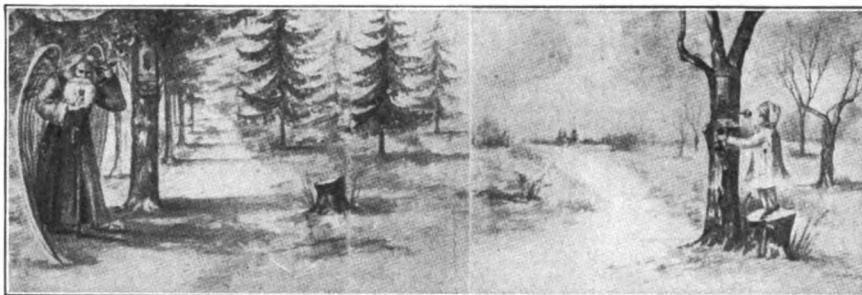
And scorn the little days that pass

Like angels on the wind—

Each turning round a small sweet face

So beautiful and fair?

Because it is so small a face



"Number, Please."—"1914."

We will not see it clear,
And so it turns from us and goes
Away in sad disdain;
Tho' we would give our lives for it,
It never comes again.

The Janitor of the Year

"The month of January, in the Roman calendar, was dedicated to Janus, the opener of doors, the janitor of the year. And to this divinity of the calendar we all come again, making our bow and bringing gifts. In our hand is a fresh tablet. It has three hundred and sixty-five leaves, on which no one has yet written, and on New Year's day we shall begin to write.

"Janus, let us peep beyond the threshold; give us just a glimpse into the inner room, down the corridors; let us have just a look."

"No, not a glimpse," the sturdy door-keeper replies, and puts his back against the door. "On New Year's day, you may 'resolve' all you please: You may write down on your little white tablet what you are going to do, and how good you are going to be, and what you hope will come true, on every day of every month of 1914. But it is my business to keep the door shut till you get to each room in turn."

"This in effect, dear friend, is what each opening year says to us all. Resolve must walk hand in hand with experience. Like the Israelites, we must gather our manna day by day. It is easy to buy grain, or pay debts, or make resolves on 'Futures.' Shall we not begin the year with the tangible purpose of living each day up to the highest level our strength and opportunities and environment make possible, and still further of raising the level as we go on? The inexorable guardian of the year gives us not glimpses, but opportunities—for each day the open door which no man may shut."

Christmas Giving in Chicago Exchanges

The spirit of Christmas had a fine expression in the Chicago exchanges. About 300 well-filled baskets were carried out from the offices to cheer the homes of those whom the girls knew were unfortunate and unable to provide Christmas cheer for their families.

The company provided the automobiles for delivering the baskets, and some of the operators went out with presents; in some cases giving up a large part of their own Christmas eve celebration.

Besides the baskets of food, presents were sent to the sick of their own force. One office sent \$15 to one of the operators who was ill. The same office gave \$7.50 to another sick operator. Another sent \$10 to a former operator who was in a sanatorium. One operator tucked a dollar each into two baskets. One office sent fifteen boxes to Oak Forest Infirmary. All of the exchanges sent flowers to their sick people, and in one case a beautiful vase to hold them.

This kindly thought and generous giving is better than to form a society of S. P. U. G. or Society for the Prevention of Useless Giving, for talking against useless giving is not half as effective as going ahead and being *Useful Givers*.

At Grand Rapids and Kalamazoo

Aroused by the spirit of Thanksgiving and a desire to do something for others, 120 operators at Grand Rapids and eighty operators in Kalamazoo prepared and distributed some forty large baskets to the humble homes of their cities' poor.

The movement took root in Grand Rapids a year ago, when the operators in a modest way supplied the Thanksgiving dinners for six families. Those who took part that year furnished the inspiration for repeating their work last year. A general meeting of all operators was held in the rest room of the Main exchange, Grand Rapids. It was proposed that a committee should be appointed to handle the affair, and that a subscription be taken among all operators. Both propositions met with hearty support. The committee was composed of Nellie Currott, toll supervisor; Marie Middlestadt, toll supervisor; Anna Daoust, supervisor, Main exchange; Mathilda Learned, supervisor, Main exchange; and Martha Johnson, supervisor, South exchange.

Public press notices brought very generous donations from Grand Rapids business men, which were entirely unsolicited. The committee called upon the Charity Organization Society to furnish the names and a brief history of the families who should be cared for, which was gladly done. All the baskets were filled by the operators by Wednesday morning. Each basket contained a chicken, new

potatoes, hubbard squash, apples, bread, butter, cranberries, canned preserves and pie.

Wednesday afternoon at two o'clock the start was made. The accompanying picture shows a load prepared to start from the telephone building.

A similar procedure was followed out at Kalamazoo. The committee appointed there consisted of Nellie Priester, Mary Bayer, Bertha Bayer, Minnie Becker, Lena Cooley, Hazel Wood and Mrs. Nellie Chubb. Automobiles were loaned by Mr. Goodale of Kalamazoo.

The young ladies who accompanied the baskets have related many touching experiences and scenes of much rejoicing at every stop.

A real Thanksgiving spirit was prevalent. It permeated the operating force and all agreed that there was as much glory in giving as in receiving.

Motor cars belonging to William Judson and Dudley E. Waters, both directors of the Michigan State Telephone Company, carried the Bell telephone girls about the city to distribute their two dozen baskets.

What is a Veteran?

By Adaline McWhinney, Matron at Indianapolis.

At these annual gatherings, when we meet to do honor to our veterans, it is well for us to know exactly what a veteran is, what it means to be a Central Union Telephone Veteran, and why we honor them.

Common as the term veteran is, and the frequency of its use, in newspapers and in conversation, yet, strange to say, the various encyclopedias and reference books contain very little information concerning the word itself.

About all we can find in print is the definition given by the different dictionaries, and a few lines concerning the derivation of the term.

Webster gives us as a definition: "old, tried, experienced, practiced and skillful; entitled to consideration and respect on account of long service; trustworthy." Also, "a mark of distinction conferred upon those who, by length of service, skill and loyalty, have this honorable title given them."

At first thought, and in the general acceptance of the term, we are apt to think of old soldiers—veterans of some war, or other; but we find from the definition of the word that the term is broader than that, and it is not necessary to march to fife and drum to win distinction and honor to become veterans.

To become a veteran in the commercial world, one must be like a soldier, brave and fearless, fighting the fight with skill and undaunted courage. We must be trustworthy and skillful and experienced, and we of the Bell Telephone Company are demonstrating here (this afternoon) that we can produce veterans, who, in point of service, have more honorable years to their credit than many veterans who have earned their titles as defenders of their country.

What does this mean to our veterans? What does this mean to our company?

It means, first, that our veterans have been faithful, that they are trustworthy, that they have become skillful, and are "old, tried and experienced." Time has tested their loyalty. They are a "known quantity" and honored and respected.

Long years of service in any line develops patience, endurance, ability, understanding, judgment and reliability; all most valuable attributes of character,



READY TO DELIVER THANKSGIVING BASKETS TO THE POOR AT GRAND RAPIDS.

and Bell Telephone "Vets" certainly must have acquired a considerable increase to their original endowment to have served so honorably and well, and they are active "Vets" yet.

To the company the service of its veterans means much. It is a guarantee of service and reliability. The character of a company or corporation is determined by its employees, and it is impoverished or enriched by those who serve it. They either add to, or take away, by good or bad character, and by good or bad service. And the Bell Telephone Company honors, respects and appreciates its veterans, for they have been tried, tested and not found wanting. And we have gathered here (this afternoon) to honor these veterans and the company who honors them.

Our minds turn to the military significance of the term veteran, too; we never see a column of battle scarred old soldiers marching to the stirring strains of martial music, without experiencing a thrill of admiration for those brave, undaunted fighters and defenders of our flag. They are proud of their title of veteran, and we are proud of them.

And so, too, with the large army of veterans who are marching in the commercial ranks, wearing veteran pins of the Bell Telephone Company. These pins have been won by efficiency, loyalty and years of service in the company. They are justly proud of these symbols which they have earned the right to wear, and we are proud of them.

Service must be our watchword, and service be our battle cry. We of the ranks are proud of our veterans, and hope to follow in their footsteps, rallying to the same call, and acquiring the same medals of glory, veteran pins.

Exchange of Exchanges

Chicago:

A subscriber complained that one of his neighbors on the same party line would interrupt conversations with such remarks as "Number, please;" "your party does not answer;" "drop a nickel, please;" etc. The subscriber said that the voice sounded so much like the operator that it was very annoying. "I would not be surprised," said the subscriber, "to hear them imitating the busy signal."

Gardner, Ill.:

Subscriber: "Manager, come fix my telephone, the spout is broken."

Morris, Ill.:

Subscriber: "Give me Mr. Johnson, whose mother is a widow." The call was completed.

Manitowoc, Wis.:

An operator having passed a call to Algoma for a Mr. Fish, after getting unsatisfactory reports, asked in surprise, "Haven't you a Fish on your line?" Probably out of season and feared game warden.

Detroit, Mich.:

Cherry Subscriber: "Central, I want the complaint department. I wish to complain about a dog that was barking all night, and annoyed me very much."

Operator: "Number please."

Subscriber: "North 3378."

Operator: "North Th-rrr-ee, Th-rrr-ee, Sev-aan, Eight-t-t."

Subscriber: "You're Scotch, Lassie, you're Scotch."

A Cherry supervisor had been cautioning the operators to supervise on their calls at the end of thirty seconds, explaining to them that when they had answered three calls in succession, it would be about time to supervise on the first call. The supervisor noticed one connection, and being in doubt if the operator had supervised on it, questioned her. She replied: "I have not answered the third call yet."

A Cadillac subscriber made an emergency call for a certain line, stating that it was a case of life and death. The supervisor immediately made proper connections and then listened in for the emergency. This is what she heard: "Hello, Mag. Say, meet me downtown at 2 p. m. There's a wash-boiler sale at Crowley-Milners."

Operator: "Are you waiting?"

Subscriber: "Yes, I'm in the Dime Savings Bank with a broom, waiting for a shave."

Subscriber: "Central, please give me the hospital." (Operator quickly connects him with Cherry 1416, which is St. Mary's Hospital.)

Subscriber: "Is this the hospital?"

P. B. X. Operator: "St. Mary's Hospital."

Subscriber: "I want to report my instrument. It's out of order."

P. B. X. Operator: "Did you want St. Mary's Hospital?"

Subscriber: "No, I wanted the telephone hospital."

Cleveland, Ohio:

A writer who is telling the folk about the work in the Bell telephone exchange waxes descriptive and writes:

"I have to earn something and I thought I would take up my old work," she said as she pushed back her chair, just streaked with gray.

Perhaps some lumber expert could tell us what those chairs were made of.—
Cleveland Press.

Milwaukee, Wis.:

A Hanover office subscriber reported that he had been unable to get central for a long time, which he thought was strange, as he had a brand new telephone which stood in the corner and was not used very much.

He thought the trouble might have been at the office, where perhaps someone had his foot on the wire and got it crossed.

Manchester, Mich.:

The operator rang a new German subscriber several times to show her how the Bell would sound. The next day a neighbor asked the German lady what her ring was and she said, "A ring and a half."

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Suburban Promotions

October, 1913.

Aurora, M. Boyer, operator, to supervisor.
Whiting, G. Vater, operator to assistant chief operator.

Wilmington, F. Grenell, Mazon, operator to chief operator.

Hinsdale, M. Machtemes, assistant chief operator to chief operator. M. Hogreve, operator to assistant chief operator.

Glen Ellyn, L. Ludeker, operator to assistant chief operator.

Barrington, E. Hatz, operator to assistant chief operator.

November, 1913.

East Chicago, E. Hoh, operator to assistant chief operator.

Lowell, A. Deathe, assistant chief operator to chief operator; I. Deathe, operator to assistant chief operator.

Joliet, M. Nolan, operator to night supervisor.

Elmhurst, H. Dammier, operator from Oak Park to chief operator.

Maywood, A. Garner, operator to chief operator.

Zion City, G. Bennett, operator to assistant chief operator.

West Chicago, B. Diebold, operator to assistant chief operator.

A Serious Situation

Nov. 1, 1913

For De Wiar Fixiers,
Chicago Tel Co
No. 418—E—35 St.

Mister wiar fixier.

We all done built a new backe poorch an de wiar are done in de way off de poorch.

Pleas send a wiar fixer over wit his wagone too fix are wiar. Are telefane are Douglas — 3413 — Ave

(Signed)

Central Good Fellowship Party

A prettier sight can hardly be imagined than when 326 girls of the day force of Central Exchange, sat down to supper in the large dining room on the eighth floor of the Main Building on the evening of December 17th. The tables were decorated with little Christmas trees, and the rows of happy faces, made a gay scene; but when souvenir caps of all colors were on all heads, the scene was quite indescribable.

After supper the party adjourned to the ninth floor, where short and humorous addresses were made by Mr. Foster, Mr. Cooper, Mrs. Hyatt, Mr. Campbell and others, and a delightful program of music and dancing was given by Central girls, which was followed by a social time with dancing.

At ten o'clock the party broke up, and the enthusiasm shown proved it to be an event which all would like to repeat.

A Visit to the Art Institute

The invitation from the traffic department to visit the exhibition of the American Artists and to enjoy Christmas music and pictures, was accepted by a large company, which more than filled Fullerton Hall on the evening of December 18th. About 600 were present.

The singing of Christmas carols by the chorus of young ladies in the galleries was very effective. One of the chief operators in commenting on the entertainment, says, "I was unable to reach there in time to visit the galleries before the entertainment, but arrived just as the carols were being sung in the balcony and it sounded beautiful, and the view that I saw can hardly be told in words. The architecture of the building, the stairways lined with beautiful girls, the sweet music combined with the thoughts of the purpose of our entertainment, altogether made an everlasting impression upon me and I am sure others must have felt the same."

The services of Mrs. John B. Sherwood, who showed the pictures on the screen, were appreciated greatly. The Arcadian quartette, the mixed chorus and the girl's chorus, gave a beautiful Christmas program.

Mr. Fantozzi, the young violinist, played two numbers which were so much appreciated, that it was to be regretted that the

lateness of the hour prevented a longer contribution from him to the program.

Weddings

Minnie New, Main day supervisor, resigned to be married to Mr. Artes of the collection department. She was presented with a cut-glass vase, sugar bowl, cream pitcher and vinegar cruet by friends in the office.

Miss J. Larson of Wentworth Office, was married November 12th, to F. E. J. Young of the engineering department. A shower of linen was given at Fuller Square and light refreshments served. Many old and new friends were present to renew their acquaintance.

The Honor Roll

During last year from October, 1912, to October, 1913, a number of the Chicago operating force deserve special mention for perfect attendance. Others deserve equal praise, although not on this list. Their absences were unavoidable, being caused by sickness or other misfortune. But it is interesting to note the number who were able to make a perfect record for the year, and to congratulate them on their splendid success.

There are some who deserve special mention on account of a longer record than the year. Among these are Julia Smith, of Lake View, who has not been absent one day for seven years.

Lucille Mertz, of Edgewater, absent only one day in five years, and Emma Dretel, of Edgewater, absent only one day in four years.

At Main office, Mary Lenehan has perfect attendance for four years, Rose Marzin for three years, Gertrude Poleski three years, and Margaret Morrison, Nellie Schmidt and Margaret Fox for two years.

At Toll, Nonie O'Brien, Emma Dobry and Anna Hornbeck have not been absent for two years.

At Harrison, Helen Maguire and Albertina Sutter have a perfect record for three years, and Marie Tschupp, Bessie Schleicht, Catherine Hogan and Elizabeth Link have not been absent for two years.

The following have had a perfect record for a year:

CENTRAL

Rosa Benninger
Kittie Collins
Louise G. Deppe
Catherine Gilmartin
Lydia Gross
Elsie Koehler
Catherine Webber
Theresa Mazur
Edna Louergan
Agnes Mahon
Edith Metzler
Lucy Mudra
Edna McDonald
Hilda Rada
Winifred Richmond
Lena Ryland
Margaret Rita
Ruby Cronin
Della Cuttill
Agnes Flynn
Mary Foley
Edith Gillette
Kittie Griffin
Catherine Grimm
Nellie Nolan
Anna Sayscke

TOLL

Nonie O'Brien
Emma Dobry
Anna Hornbeck
John Fogarty
Evelyn Webb
Edna Hirsch
Marie Haupt
Margaret Doyle
Lydia Shea
Lillian Bakke
Belle Bennett
Sadie Henry
Jessie Egarter
Emma Grund
Elizabeth Flaherty
Mable O'Hara
Margaret Boyd
M. Holway
Dorothea Hinrichs
Mildred Keegan
Della Otto
Mae Dunlea
Charloth Heise
Anna Matson
M. Lickenbaugh
Josephine Finn
Gertrude Jorgenson
Mary Kane
Jane Smith
Evelyn McDonald
Cornelia Rosenwinkel

MAIN

Ella Abt
Gertrude Albrecht
Mae Casey
Katherine Colombatto
Nancy Berglund
May Desmond
Barbara Fath
Helen Flizkowski
Anna Fuchs
Margaret Gleason
Helen Harrington
Christine Kaltwasser
Marie Leonard
Katherine McCormick
Emily Novak
Hattie Riches
Margaret Russell
Agnes Ryan
Maud Sack
Katherine Touhey
Gertrude Valentine

HARRISON

Marie Flala
Harriet Sharples
Polly Gorski
Anna Devens
Mary McGrath
Minnie Kallen
Ida Kastner
Elizabeth Carroll
Mary Archer
Hattie Mertens
Irene Hilberg
Ethel Craft
Emma McKelvey
Madeline
Anna Keuster
Nellie Lateman

WABASH

Edna Buzmaum
Isabel Edlund
Margaret Murnane
Elizabeth Lua

Elizabeth Goggin
Tillie Holst
Alice Kirkhoff
Gertrude Kugelman
Agnes Peat
Margaret Quinlan
Lena Roth
Marie Swella
Helen Weir

Elizabeth Mansell
Julia Ryan
Amelia Eichman
Florence Foley
Ella Richford
Gladys Weeks
Irene Delhanty
Bertha Kaplan

OAKLAND

Sadie Anderson
Louise Baum
Julia Collins
Margaret Cummings
Elizabeth Dowling
Gertrude Fellmeth
Catherine Finnin
Anna Haddigan
Elizabeth Hamilton
Marie O'Sullivan
Lillian Pekar
Valda Rogers
Anna Rossmann
Margaret Sheehan
Barbara Wagner

DOUGLAS

Fannie McCarthy
Clara Schmitz
Anna Burke
Jennie Byers
Annie Cody
Geraldine Dillon
Elsie Frietag
May Gaderer
Grace Gallagher
Mary Griffin
Mabel Iser
Nellie Mahoney
Minnie Marquardt
Violet Piepgras
Margaret E. Graham
Clara B. Evick
Helen Billows

HYDE PARK

May Bateman
Cora M. Buexten
Blanche Grady
Marion Hickey
Mary O'Brien
Esther Olson
Nettie Pilon
Jessie Riddington
Elsie Sells
Hattie Sells
Anna King
Lillian Scanlon

CALUMET

Nellie Grant
Margaret McCarty
Marion Huntziker

YARDS

Angeline Ardizzone
Nora Conley
Annie Loeffel
Bessie Molloy
Mamie O'Brien
Eileen Fitzgerald
Catherine Joyce
Annie McNichols
Caroline Kraft
Anna Schellhase
Clara Lenz

WENTWORTH

Della Ryan
Stella Brennan
Emily Howard
Florence Lunt
Anna Friedel
Mary McEnery
Emma Squires
Hedwig Wolf
Elinore McTigue
Elizabeth Mahon
Margaret Moore
Mamie Reiss
Lillian Daly
Ida Scheuneman
Mae Bennett
Marie Daly
Lillian McCrudden
Camille Navatili
Theresa McTigue
Mabel Nelson
Catherine Curran
Charlotte Lucy
Luella Cassidy
Teresa Carey
Jennie Larson
Catherine Dwyer
Sophie Bauer
Alma Frost
Catherine Daly
Clara Pomeroy
Freda Ankarberg
Evelyn Ricker
Emma Campana
Agnes O'Donnell
Beatrice Buckley
Mary Moran
Edith Morgan
Margaret Bain
Maude Ferguson
Nora Flatley

LAKEVIEW

Clara Klermund
Tillie Lerch
Julia Smith
Mae Anderson
Maudlean Olson
Ruth Magee
Ida Scheski
Grace Smith
Jeannette Alfred
Marie Kraus
Anna Terborg
Susie Meyers
Eleanor Toennessen
Celia Temske
Florence Klein
Catherine Flynn
Martha Pommrenning

LINCOLN

Alvina Traxl
Rose DeMuth
Katherine Munster
Irene Radtke
Bertha Lotz
Anna Hoppe
Mary Stuber
Cora Munster
Anna Meng
Katherine Jacobson
Louise Pfeiler

EDGEWATER

Emma Dieth
Lillie Fritz
Lillie Georgeson
Ada Lindblad
Gertrude Mertz
Caroline Stangohr
Katherine Werne
Catherine Dolan
Lucie Mertz
Charlotte Condon
Frieda Rosenthal
Mary O'Grady
Edna Barker
Marie Furlong
Alzina Malcolm
Rose Valentine
Ethel Hell
Esther Johnson
Florence Collins
Alice Dworak
Alma Geise
Charlotte Mueller
Mabel Reutzsch
Helen Springer
Minnie Zellinger
Helen Recktenwald
Agnes Stark
Emma Walter
Mary Madden

IRVING

Katherine Roach
Estella Shappi
Lawretta Darsch
Frieda Pfeiler
Laura Fanselow

NORTH

Bertha Popp
Agnes Olson
Susie Hollihan
Nellie Cullerton
Katie Torpey
Daisy Blakeman
Josephine Kalb
Lillie Kesling
Lucy Madden
Lizzie Dwyer

ROGERS PARK

Ella Zakrzewsky Emily Nichols
Ethlyn Rump Helen Welter
Sophia Baumer Amelia Welter

HUMBOLDT

Eugenie Novosadko Hattie Hanson
Marie Biller Frances Hoeppner
Pearl Kernahan Bessie Bowen
Arabelle Killam Florence Hansen
Hilda Larson Lawretta Leyden
Frieda Puerkel Katherine Nellis

WEST.

Jeanette Corbett Frances Schilling
Elsie Ewald

LAWDALE.

Gertrude Bogda Frances Miller
Mary Clayton Nora Norris
Nellie Downey Hattie Nowatzki
Mary Finegan Lena Plenkowski
Sarah Golden Elsa Seitz
Ella Goltzman Bessie Senicka
Theresa Heckl Anna Stetcher
Lillian Kasperek Catherine Tudor
Mary McCune

MONROE.

Isabella Anderson Mary Kilbride
Mae Carter Minnie Krugh
Margaret Donaher Hilda McKell
Mary Frainey Kate Quinn
Nellie Griffin Martha Reum
Delia Hendricks Margaret Tudor
Catherine Holick

BELMONT.

Elsie Bach Helen Napieralski
Jessie Corbett Mae McNetney
Olive Corbett Amalie Mueller
Hannah Highland Elsie Proehl
Helen Kamrat Mamie Riemers
Jennie Liebeskind Alma Seefeldt

CANAL.

Louise Krueger Albie French
Mary Videtich Marion Clifford
Lillian Ahlgrain Jennie Hickey
Frieda Stahl Helen Hass
Anna Gaertner Mary Jordan
Ida Illenfeld Margaret Cahill
Gertrude Behm Lillian Soucup
Rose Schimek Emma Heiss
Frances Kuhn Stella Kosmala

KEDZIE.

Anna Behnke Katherine McGraw
Anna Brignole Anna Rose
Lillie Dwyer Isabel Niemann
Jessie Gray Sophie Sikorski
Marie Hass Orpha White
Mary Loughran Elsie Rix
Catherine McAuliffe Mary Lehman

AUSTIN.

Anna Owens Tillie Ohlin
Hazel Holden Helen McGrath
Emma Samuels Ida Voles
Laura Nissen Hazel Merrick

NEIGHBORHOOD DISTRICT

Anna Laidlaw Rose Cramer
Gertrude Osborne Dora Filler
Marjorie Kennedy Emma Weber
Anna Tardiff Irene Hoagland
Clara Day Alice Peterson
Maggie Griffith Bertha Rosenquist
Blanche Stevens Eugenia Bucher
Nellie Ford Alice Hoagland
Nettie Johnson Anna Zeek
Esther Sass Anna VanScheltema
Hilda Wetzel Marie Cassidy
Nellie Sheridan Caroline Wingerter
Martha Ferguson Grace Purdy
Nellie O'Leary Harriet Felthouse
Tessie Kelly
Ida Olson

Illinois Division

A. J. Parsons, Correspondent,
Springfield

Champaign District

W. A. Reed has been appointed collector at Champaign, succeeding Lloyd Bogan, resigned.

William Chamberlain, wire chief at Champaign, on November 26th surprised his friends by taking a bride, Maud Gast. They will reside at 6 East Springfield Avenue.

The December operating force at Champaign was increased by the addition of Grace Haines and J. Daniels. Jessie Lewis and E. Gardke, of the local force, have taken positions in the toll line-up. Several local operators have started to learn toll operating.

Decatur District

S. P. Gable, plant chief at Decatur, has received a new Ford car to be used for his inspection work.

Frances Faught has resumed her duties as local operator at Decatur after a visit with friends in Kansas City.

Marion Kelley has been appointed night chief operator at Decatur, succeeding Marie Burchard.



TELEPHONE BUILDING, ABINGDON, ILL.

Ruth Diss resigned her position as toll operator at Decatur and was married Dec. 1st to Claud Hoge of Harriestown.

Donna Vaughn resigned her position as toll operator at Decatur December 1st and was married to Allen Sims of this city.

A new observation board is being installed at the Decatur exchange.

Galesburg District

L. P. Shoop, formerly clerk to District Commercial Manager Brown, and now with the Electric Service Supplies Company at Chicago, Ill., called upon his friends at the Galesburg exchange while on his visit here. Mr. Shoop has recently been married and his telephone friends extended congratulations.

Fred McIntire is a new lineman at Galesburg.

Fred Prout, cable foreman, has charge of the cable work at Galesburg.

C. C. McClung, F. B. Pattee, W. J. McQuiston and R. Laham, officers of the Monmouth Telephone Company, called at the Galesburg exchange recently and inspected the apparatus and building. The Monmouth Company contemplates some improvements in order to handle growing business.

On November 28th and 29th, the Abingdon Home Telephone Company held a public reception in its new exchange building and invited the public to call and inspect the new apparatus. Several hundred people took advantage of this invitation and all were well pleased with the telephone exchange this company has erected in Abingdon. Mr. Cheadle, secretary of the company, accompanied by Mrs. Cheadle, came down from Joliet to assist Manager McFarland in the opening and explain the working of the switchboard and other parts of the equipment. Light refreshments were served and all visitors were given a carnation, as well as a post card picture of the building as a souvenir of their visit.

The Bell Telephone Employees' Association has organized for the winter and is holding semi-monthly meetings to study the different routines and to discuss the various papers that will be presented by the members of the association. In addition to the study and discussion, several social events are planned.

Jacksonville District

A new No. 9, iron metallic circuit has been completed between Beardstown and Arenzville, providing better toll service to Arenzville which had been reached heretofore over a grounded farmer line.

Anna Saeger has been promoted to chief operator at Beardstown, succeeding former Chief Operator Miss McCarty, who took a position in the accounting department at Springfield.

Lillie Vasconcellos, toll operator and Nellie Conkle, local operator at Jacksonville, had the distinction of being the first woman voters in Jacksonville during the recent "wet" and "dry" election.

Foreman J. A. Prout has completed the rebuilding of the toll lines from Beardstown to Rushville. The iron wire was replaced by copper and a new copper circuit added; also a phantom circuit.

Kankakee District

Miss Smith, the Peoria district instructor, was in Kankakee for two weeks, instructing operators.

Alexina Smith resigned her position as supervisor and was married shortly after. She will make her home in Sioux City, Iowa. She spent the Christmas holidays in Kankakee. Leonia Smith, her sister, was promoted from toll operator to supervisor.

Lenore Hell resigned as local operator at Kankakee and was married a few days later. Mildred Belz has accepted the position.

Solicitors at Kankakee, Ill., secured 105 new contracts during the month of November.

Laura O'Hara, formerly collector at Kankakee, has resigned. Lila Koon has accepted the position.

Lillian Snethen, cashier at Pontiac, has resigned and is succeeded by Lillian Williams.

Mette Christensen has resigned her position as chief operator at St. Anne and will accompany her father to California to spend the winter. Miss Christensen has been in the employ of the company for ten years and five months, and during this time she has made the acquaintance of nearly every telephone employee in this part of the state. She will be missed by everyone that knows her.

Margaret Dennehe, chief operator at Dwight, underwent an operation on Thanksgiving day, but is back to work again and feeling fine.

Minnie Biggs, formerly of Peoria, has accepted the position of chief operator at Pontiac.

La Salle, Ill.

Dorothy Dwyer, stenographer at La Salle, has resigned and Gertrude Gannon has been appointed in her place.

Kathleen Fettig has been appointed pay-station attendant at La Salle.

Naurine Hendrix, formerly an operator in Chicago, has taken a position as temporary collector at La Salle.

Paris District

Edna Rohour, local and toll operator at Paris, has resigned and Bertha Driakell has accepted the position.

W. C. Drysdale of the Coles County Telephone & Telegraph Company of Charleston has accepted a position as general superintendent and manager of the Commercial Telephone & Telegraph Company at Olney. He is succeeded by Hill Moss, formerly manager of the Kinloch company, at Chrisman, Ill.

George Gordon, wire chief at Charleston, Ill., has resigned his position. Sayles Bowman, assistant wire chief, of Mattoon, is acting wire chief.

W. V. Thomas, manager of the Greenup Telephone Company at Greenup, Ill., was married to Ruth Cooper of Martinsville, Ill., October 19th.

Peoria District

Ora Adams, repairman at Lewistown, Ill., has been transferred to a similar position at Pekin. Mr. Adams is succeeded at Lewistown by Louie Greenup.

An estimate has been approved and assigned to the plant department for aerial cable work at Chenoa. The total of this estimate is \$2,345.

A private branch exchange has just been installed for the Peerless Cleaning & Dyeing Company, Peoria, consisting of two trunks, cordless switchboard and six sub-stations.

Schipper & Block, which is one of the large department stores in Peoria, had the Central Union Telephone Company install a Santa Claus telephone in their window. This is in accordance with their annual custom and children from all over the city called Santa Claus over this telephone making known their Christmas wants.

The following is a letter received at the Peoria Illinois Exchange, expressing appreciation for telephone service:

Mr. Geo. C. Treadway, Mgr. Central Union Telephone Co., Peoria, Ill.

Dear Sir:

The Peoria Equal Suffrage Association desires me to convey to you and to the Central Union Telephone Company our thanks for the use of the telephone you so kindly placed at our disposal during the convention.

Very truly yours,

(Signed) CATHERINE E. McDONALD,
Corresponding Secretary.

H. Chrisman has accepted a position as commercial agent at Peoria.

John A. Scoville has resigned from the collection department at Peoria, and is succeeded by Charles Warren.

C. F. Wilsey, of the collection department, Peoria, had to go to St. Louis on account of the sickness of his mother and he is succeeded by F. Powers.

The engagement of Elvira Princess Avery

of Galesburg to George C. Treadway, district commercial manager at Peoria, has been announced. The wedding will take place early in February. Miss Avery is a daughter of the late C. M. Avery, one of the founders of the great Avery Planter Works at Averyville.

Quincy District

Operators of the Quincy Exchange gave their first annual dance on December 10th. They had a very large crowd and all enjoyed themselves thoroughly. The features of the dance were the programs which were gotten up in the form of a telephone directory and the dance figures were all made in telephone phrases. The operators expect to have several more before the winter is over.

May Sweeney, local operator, has resigned and moved to Des Moines, Iowa, where she accepted a position with the Iowa Telephone Company.

The work of consolidating and reconstructing the two Quincy Exchanges has been completed and at the present time there are only one and two-party lines in service. Quincy people are now getting first-class telephone service. The company has spared neither pains or money to make it first-class in every respect.

Rockford District

In connection with the installing of additional apparatus to take care of the large increase in business at the Rockford exchange, the building has been remodeled on the first and second floors. The plant department is now completing arrangements for redecorating the building throughout.

Lloyd Lange, formerly with the construction department at Rockford, has gone to Moline where he will take a position with the plant department.

Installer H. D. Cahoon was married on Thursday, November 13th, to Pearl Durand. They immediately went to their newly furnished apartments, where they expected to find everything artistically arranged, as was planned. Mr. Cahoon had not confided his intentions to any of his fellow-employees, but in some miraculous way everyone seemed to feel sure of what was going to happen, especially when he did not report for duty as usual. Paint, brushes and cardboard were soon brought into play and placards reading, "Just Married," "Where Did You Get That Girl," "Love in a Cottage," and others were beautifully painted. They were then turned over to the line wagon, which had Mr. Cahoon's order for a telephone, and these men, always on the job, made their way, with the signs, to the highest and most prominent parts of the house, where they were securely fastened. The result was most satisfactory to everyone but Mr. and Mrs. Nooly-weds. Mr. Cahoon has just succeeded in disentangling the last of the signs, but all the residents in that portion of the city are well informed as to his identity, as most every night about dark he could be seen climbing to some dangerous point on the house in the hopes of eliminating at least one more of the advertisements.

Essie Cameron, local operator at Rockford, has been promoted to the position of local supervisor, succeeding Grace Zeiner, who resigned to take a position as private branch exchange operator at the Emerson-Brantingham Company.

Members of the Blue Bell Club enjoyed a theater party at the Orpheum on the evening of December 10th. The club girls made preparations for filling Christmas baskets and also for other work among poor people.

Alma Andrews has resigned her position as toll operator, and, although she has not stated her plans for the future, it is rumored that Cupid has had a hand in the matter.

Grace Ryan, local operator, has been promoted to the position of local supervisor.

Several operators' meetings have been held at the Rockford exchange, which were presided over by Lester H. Pettus. Preceding each meeting a dinner was served to the operators, after which service and telephone work in general were discussed.

Rock Island District

The work of installing two sections of No. 1 board in Moline is progressing rapidly under the efficient efforts of the Western Electric Company.

An estimate covering cable extension and other outside work at Sterling has been approved and work will be started soon.

An estimate covering the central office equipment in the new Rock Island building has been approved, and Manager Beverlin is very much gratified to know that the entire equipment is of the latest and most modern type. When installed the Rock Island exchange will be the best equipped exchange in the Illinois division, he says.

An estimate covering work of rebuilding the Geneseo-Galva toll line has been approved and work will be started in the early part of the year.

An estimate covering outside work at Moline has been completed.

An estimate covering the installation of one section of No. 9 board in the East Moline exchange and the installation of a forty-eight-volt battery has been completed.

One section of No. 21 toll board has recently been added at Rock Island to take care of the increased toll business. The installation of one section of A board to the Rock Island exchange is now in progress. These additions to both the toll and A board were made necessary by the rapid growth in business, even though the present building is soon to be abandoned. The new Rock Island building is under roof and is progressing rapidly.

Mr. Dolly, manager of the Empire Theater, entertained the Central Union employees at a theater party November 20th. Mr. Dolly occasionally shows his appreciation of the good service rendered him in this way.

The operators at the Rock Island Exchange, with the Thanksgiving spirit, pleasantly surprised their janitress with a basket heavily loaded with good things to eat.

A meeting of the chief operators and supervisors of the tri-cities was held on December 2d. Mr. Barlow, district traffic chief, gave a talk on "Accurate Peg Counts." This was followed by a general talk on subjects of common interest.

Mr. Pettus, acting traffic chief at Rockford, and Miss Munthe, district instructor, were visitors at Rock Island December 1st.

Springfield District

Lillie Hall, formerly chief toll operator at Springfield, has accepted the position of service observer. Helen Gaffigan, toll supervisor, succeeds Miss Hall as chief toll operator.

The Y. W. C. A. entertained the Springfield operators December 5th at a children's party. The guests came attired as little girls. Games were enjoyed and late in the evening dainty refreshments were served.

The toll girls gave a dancing party, December 2nd, at Bidwell's Dancing Academy, Springfield.

Contracts covering a private branch exchange with two trunks and eight stations were secured during November for the Reisch Brewery, Springfield. Contracts have also been secured for a private branch exchange with two trunks and seven stations in the auditor's office at the State House.

Indiana Division

D. H. Whitham, Correspondent Indianapolis

Veteran's Meeting at Indianapolis

The annual Veteran Meeting and Reception, given by the traffic department, was held on the Main Office Roof Garden during the afternoon and evening of Monday, December 1st. The special feature of the meeting was the presentation of the Veteran pins to six of the operators who had served the five years that give them this honor.

Guy Green, district traffic chief, was master of the ceremonies, and gave an instructive and interesting talk on "Loyalty to the Company We Serve."

Traffic Superintendent Wayne followed by a talk on the "Life of the Telephone," giving a short history of it and spoke of its being in the memory of many present when the telephone was in its infancy. He dwelt feelingly on fraternal feeling existing in the ranks of the telephone employees throughout the country, and at the close of his address presented the new Veterans the pins for which they have so loyally worked, and which they will value all their lives as one of their choicest possessions.

Mrs. McWhinney read a paper on "What is a Veteran and What Does It Mean to be a Veteran." This is reproduced in the Girls' Section of this issue.

Miss Cooper's paper was a Thanksgiving story that touched the hearts of the audience and brought out the points she wanted in showing what can be done by persistent right thinking and continued right doing.

Miss Welch in her greeting told how proud she was of her title of Veteran, and brought out the point, that it took perseverance, application, and an earnest desire to grasp the opportunities as they presented themselves and not depend upon the so-called luck to reach the goal of our ambitions.

Mrs. Jones read a paper on "We Can If We Will," which was full of splendid points, carrying out her theme. Her story of "I Think, I Think I Can, and I Thought I Could," was fine.

Mr. Hollis told in a clear manner how the service looked to him both from his experience on the outside as a service inspector, and from the inside as chief operator. His

talk was interesting and very instructive and was listened to with close attention.

Miss Dugan and Miss Newnam both responded to calls on them, giving bright little talks to the newly honored Veterans, welcoming them to the ranks and assuring them that it was not at all bad to be called "old soldiers."

The formal part of the meeting was followed by the social hour, features of which were music and dancing. Refreshments of doughnuts, cider, and rosy-cheeked apples were served. Expressions were heard on all sides that this was the best meeting ever held.

Toll Records Broken

A very interesting competition is now going on in the toll room at the Indianapolis exchange against the standard of lost calls. Each month the standard is placed on the bulletin board and at the end of each day the accumulated total of lost calls for the month is shown and the toll department endeavors to lower the mark. On Sundays a senior toll operator and supervisor are in charge and there being three of them on three successive Sundays, the competition among them is also keen. The result has been that on Saturday, December 6th, was recorded the lowest number of lost calls in the history of the Indianapolis exchange.

On November 1st all records were broken in the number of good outward toll calls handled at the Indianapolis exchange, the number being 1,629, exceeding by four the largest number handled during the flood period. The above is especially pleasing in view of the fact that two years ago we were looking forward to the time when 1,000 good outward toll calls per day might be handled.

Indiana Division Notes

A new copper circuit has been placed in service between Indianapolis and Anderson.

Commercial Superintendent J. W. Stickney visited South Bend as a special delegate of the Rotary Club and while there attended a banquet of the Knife and Fork Club as the guest of Manager E. T. Bonds.

F. H. Lincoln, traffic superintendent of Wisconsin, was a visitor for two or three days with Traffic Superintendent Wayne of Indianapolis. While here he attended two of the regular toll operators' meetings and expressed himself as being very favorably impressed with them.

C. C. Bagby, traffic engineer of the Mountain States Telephone and Telegraph Company, was a recent visitor to our traffic department.

J. L. Wayne, traffic superintendent, and W. G. Lytle, of the traffic department, recently spent two days with Traffic Superintendent F. H. Whitten of Ohio, in connection with a study of general traffic conditions, and especially in connection with making the annual toll study and with the classification of expenses in the traffic department.

Corra Crawford, order clerk in the division auditor's office, has had a birthday. The girls of the commercial department and some of her associates gave a very pretty birthday party on Monday night, December 8th.

The News correspondent took his vacation the last half of November. He isn't going to tell all he did. Among them he hunted and hunted and hunted. Did you ever just hunt—not kill anything, but just hunt. He finally, however, shot a chicken hawk which measured forty-six inches from tip to tip. (This means wing.) It was some hawk. The facts can be proved if necessary.

Central District

Minnie Zander, Prospect night operator, was married November 26th to Ray Price. She has been succeeded by Nellie Jensen.

Alma Cox, Prospect operator, has been promoted to information operator, succeeding Katharine Prader, promoted to supervisor.

The supervisors of the Woodruff Office had a very interesting meeting in December, which was addressed by Guy Green, district traffic chief.

The employees of the Woodruff Office gave their annual Christmas reception in the Woodruff Rest Room Tuesday evening, December 23d.

Irene Scott, senior operator of the Main office, has been promoted to supervisor.

Mary O'Connor, North Office supervisor, has been transferred to Main.

Marie Adams of the Main office, entertained the girls of her division at her home on December 10th.

Bessie Sturgeon, operator at the Main office, entertained the girls of her division at Knickerbocker Hall, on December 15th.

The regular monthly meeting of toll employees was held December 16th. The guests of honor were: Ella Benson, chief operator; Miss Markey, supervisor; Miss Warren, even-

ing chief operator; Helen Strong, inspector; De Ette Benson, stenographer, and R. R. Gleason, district traffic chief, all of the A. T. & T. Company.

The Baldwin Company, 18-20 North Pennsylvania street, has installed a private branch exchange of two trunks and four terminals.

W. E. Stevenson and Company, 126 East Market street, Indianapolis, have installed a private branch exchange of one trunk and six terminals.

Northern District

Lura Nicholson entertained the Anderson operators at a party on the evening of November 11th.

Frances Lloyd, evening chief operator at Anderson, resigned November 20th and is succeeded by Elsie Willson.

Marie Kelly, information operator at Anderson, will be transferred to the commercial department to take the position formerly held by Esther Bevan. Addie Rector succeeds Miss Kelly.

Local workmen recently completed the laying of 200 feet of conduit and installing a telephone for the noted Indiana authoress, Mrs. Gene Stratton-Porter, at her new \$17,000 "Limberlost Cabin," built upon the bank of Sylvan Lake, Rome City. The "cabin" is built of logs and has the appearance of a home similar to the "Limberlost Cabin" in her stories, although it is modern throughout. One novel feature of its arrangements is that no wires of any kind are found within 200 feet of the cottage, all being conducted to the building through conduits.

The Merchants' Mutual Telephone Company will put up \$8,000 worth of new cable at Michigan City.

The Co-operative Telephone Company will spend \$1,500 for new central office equipment at Eaton and central office repairs at Albany.

A new copper circuit and phantom have recently been completed and are now in service between Elwood and Tipton.

Bessie McAulay has been promoted from operator to supervisor at the Peru main exchange.

A birthday surprise was given to Martin O'Brien, Peru plant chief, November 20th. He was presented with a thermos bottle which he says will be just the thing when he goes fishing next summer.

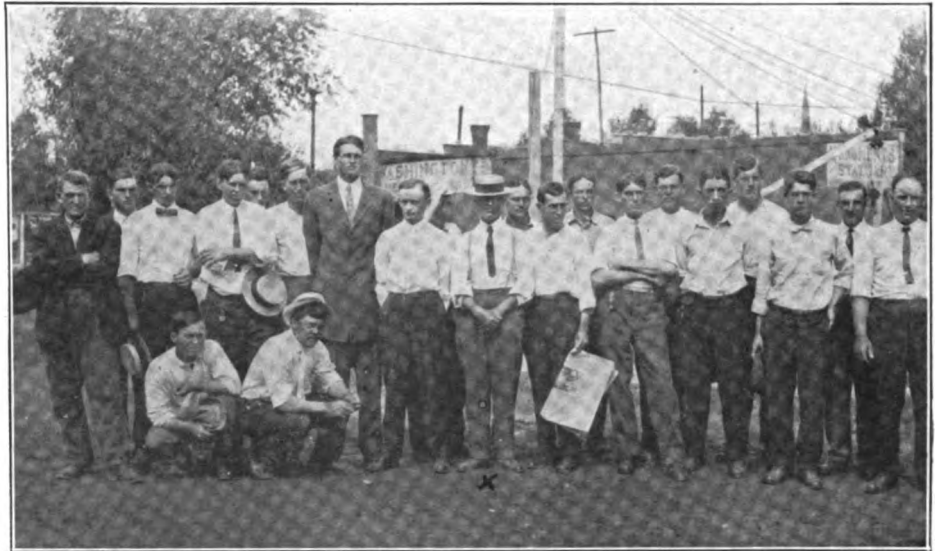
A birthday surprise was given Mrs. Bob Bowden of Peru, on November 24th.

Florence Gilbreth, traffic clerk at Peru, has been transferred to the commercial department as order clerk. Georgia Weaver takes her place in the traffic department.

Lima Burbank, former collector, has taken a position in the commercial department at Peru as clerk.

At the Frankfort exchange, Manager Smith has arranged for a series of evening meetings for the plant employees. The purpose is for a general discussion of various phases of telephone work, as covered by our specification books and BELL TELEPHONE NEWS Educational Course. Classification work and accounting routine bulletins are also studied during each meeting.

Margarette Snowberger, operator at Auburn, was married November 27th to Ray Palston. A set of silver teaspoons was presented with the best wishes of the Auburn operators.



SOUTHERN INDIANA REPAIR GANG.

Foreman S. L. Butler (marked by X) and men who strung new circuit from Washington to Petersburg and made permanent repairs on French Lick lead.

What proved to be one of the most successful social events of the Elwood season was a dance and card party given by the Central Union equipment department, Saturday evening, November 15th, at the Red Men's home. Employees from Anderson, Muncie, Alexandria and New Castle were invited. After a pleasant evening spent in dancing, the guests, numbering 100 were served with a fine supper. Manager A. B. Porter was present and gave an appreciative talk. Anna Thurston, traveling supervisor, was also present.

Lucille Botkin, local operator at Muncie, was married November 22d to Doane Hamilton.

Ruth Shannon, toll operator at Muncie, has resigned to become private exchange operator at the Delaware Hotel.

The Monday Evening Domestic Science class of the Y. W. C. A., which is composed entirely of Muncie telephone operators, was entertained at a six-course dinner November 25th by the members of the advanced classes. Everything was complete and beautiful from the hand-painted place and menu cards to the gold web-basket favors.

Effie Skinner, formerly of Dayton, Ohio, is now night chief operator at Muncie. Ethel Banks goes back to the day toll force.

A new commercial office has been arranged on the first floor of the Traction Building, Muncie. The new office will be fitted up in first-class shape and will be accessible both to the Muncie patrons and the traveling public.

Southern District

Earl Talbott, general manager of the New Home Telephone Company at Bloomfield, Ind., has resigned to become postmaster of Linton. Mr. Talbott had been in charge of the New Home Telephone Company's business for many years and prior to that time was connected with the construction department of the Central Union Telephone Company. The position of general manager has been abolished and E. G. Knepper, who has been assistant to Mr. Talbott for the past three years, has been made manager of the Linton exchange. J. A. Parrish, formerly with the auditor of disbursements, Chicago, has been appointed bookkeeper and collector.

The construction department has practically completed the rearrangement of circuits and new construction between Crawfordsville and Terre Haute via Rockville.

S. W. Hunselman, manager at Brooklyn, and his corps of helpers, gave a banquet in Griggs Hall, November 25th.

Mrs. Amy Breen has been transferred from the position of extra operator to night operator at Spencer, succeeding Flossie Edwards, resigned to finish school work.

Manager Paul S. Higman and Chief Inspector Harley Guthrie, of Bedford, gave their annual supper to the male employees of the Bedford exchange at the Stickles Hotel, December 15th. After a turkey spread, interesting talks were made by Plant Superintendent W. R. Hirst and District Plant Chief E. L. Hamlin, of Indianapolis. An original Santa Claus act was staged by Traffic Superintendent J. L. Wayne, in which was presented to each guest a toy of some kind which was intended vividly to portray a peculiar trait in the character of the recipient. A number of Indianapolis officials were present. Letters of regret from General Manager L. N. Whitney and District Commercial Manager Frank Wampler were read.

The American Telephone and Telegraph Company will soon be installed in new quarters in the Central Union building in Terre Haute. Foreman De Vore of Indianapolis has just completed laying conduits and building the necessary manholes for putting cables underground in connection with moving the A. T. & T. test station from North Eighth Street to the Telephone Building on Ohio Street. The inside equipment work was started December 1st by Foreman Baney of the A. T. & T. Company's equipment department of Chicago, and is progressing rapidly.

J. D. Evans, clerk to Plant Chief F. W. Rolan at Terre Haute, has been confined to his home with pneumonia fever.

Mary Wallace for three years toll operator at Terre Haute was married December 2d to Carl Bartenback, circulation manager of the Terre Haute Tribune. Florence Toy gave a china shower for the bride. About twenty of the operators were present, and spent a most enjoyable evening.

Kathryn Z. Smith, toll operator at Terre Haute, has recently been transferred to observation operator, and spent a few days in Indianapolis preparing for the new position.

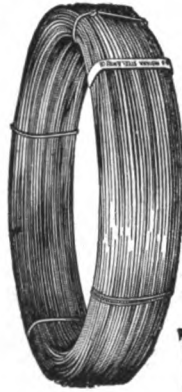
Terre Haute employees made great preparations for their annual Christmas entertain-



BANQUET GIVEN BY MANAGER HUNSELMAN AT BROOKLYN, IND.

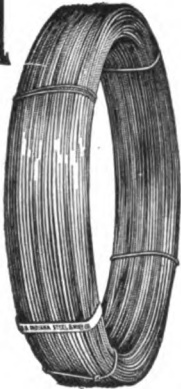
TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.

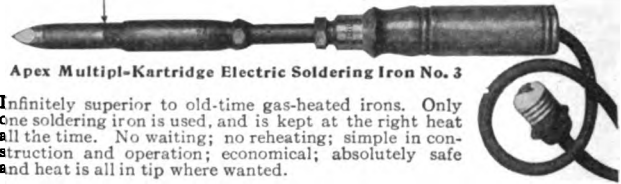


Write for FREE SAMPLE
Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.



Indiana Steel & Wire Co.
Muncie, Indiana



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



The "Dreadnaught" Brazed Steel Gasoline Blow Torch

Made to deliver the Hottest Fire and to withstand the Hardest Knocks and has made good and stood the service test of the Telephone Companies.
No soft Solder to melt or crack.
Large Pump, quick starting Burner.
Convenient Filler service.

Let us quote you.

The P. Wall Mfg. Supply Co.
PITTSBURGH, PENNA.

ment. This year they had a vaudeville and luncheon instead of the Christmas tree as heretofore. It developed that there was much talent slumbering among the employees, and the vaudeville was a great success.

District Traffic Chief R. R. Gleason of the A. T. & T. Co., and District Traffic Chief C. L. Sawyer, of the Central Union Company, both of Indianapolis, spent a few days in Terre Haute re-arranging the toll operating schedule. The new switching positions recently completed will add much to the speed in handling toll calls especially on the 103 method.

W. E. Chambers, chief inspector, has left Vincennes on account of his health and is now in Albuquerque, New Mexico. He expects to return next Spring.

At Lafayette work on the Wabash River crossing at Brown Street has been completed. Foreman Lindsay, of the construction department, has recently completed his estimate work at Vincennes. This completes work that has been going on in Vincennes for a year or more. In connection with the consolidation with the Knox County Telephone Company, the plant has practically been rebuilt.

G. H. Rowlett, special wire chief of Crawfordsville, has been transferred to Vincennes.

The plant department is making special efforts to get as much outside work done as possible before severe winter begins.

Hazel Johnson has taken a position as local operator at Bloomington succeeding Mrs. Ruth Hawkins, who resigned November 16th.

F. H. Kissling, manager at Terre Haute, entertained his entire commercial, traffic and plant force at a banquet held in the operator's rest room on the evening of November 20th. This dinner was a sequel to the Open House conducted during the week of the Annual Corn Show and Industrial Exposition. There were 121 employees at the table. Arrangements were made to relieve the operators at the switchboard as their hours of duty terminated and in this way all were able to enjoy the banquet and the merriment that followed. At the conclusion of the meal, Manager Kissling called on W. M. Kendrick, of the traffic department at Indianapolis, to explain to the banqueters, the absence of J. Lloyd Wayne, 3rd, traffic superintendent for Indiana, and C. L. Sawyer, district traffic

chief. However, before the evening was over Mr. Sawyer put in this appearance with a special message of regrets from Mr. Wayne. There were short talks given by the various heads of departments. Stories and funny questions, heard and asked during the open house, were told by different employees, much to the enjoyment of those present. After the dinner, dancing was in order, and it was near the "wee" hours when the party disbanded.

Wisconsin Division

**H. J. Bendinger, Correspondent,
Milwaukee**

Appleton District

A No. 4 private branch exchange of two trunks and eleven stations has been installed for the Wisconsin Traction, Light, Heat and Power Company at Appleton, under supervision of G. R. Lyman, assisted by George Verheyden, who cut in the terminals.

Appleton plant employees are holding interesting meetings every Monday. The employees are quizzed on Specification No. 5,000 by City Foreman S. E. Bartlett; on Specification No. 5,003 by Wire Chief G. R. Lyman; and on the code book by Manager D. E. Gaffney.

The Berlin (connecting) Telephone Company has connected a new circuit serving eight subscribers, to the Berlin Exchange.

Oscar Winthers, Morse operator at Berlin, resigned and is succeeded by Frank Vieaux, former Morse operator at Shawano.

Clara Smith has been promoted to chief operator at Berlin, Jean Mills resigning. Adah Heffernon, local operator at Berlin resigned, and is succeeded by Della Jordan.

Rose Callaway, assistant chief operator at the DePere Exchange, was pleasantly surprised at her home in the town of Lawrence on her twenty-third birthday.

The DePere exchange is now using a Ford runabout, in place of a horse and buggy.

Martin Stratz, Jr., aged fifty-seven years, manager and secretary of the Woodhull Telephone Company, died at his home in Lamar-

time, November 22nd, after a two months' illness. Mr. Stratz began active part in the management of the Woodhull Telephone Company at the time of its organization in 1907. He practically supervised the installation of the entire system, doing most of the work himself. This company has 138 rural subscribers connected with and receiving service from the Fond du Lac Exchange. Mr. Stratz has been a resident of Fond du Lac county for fifty-seven years and served the town of Lamartine as chairman and member of the County Board for six years, was road superintendent for twelve years and for twelve years was school clerk for District No. 5. He was widely known and well liked throughout the county and the esteem in which he was held by all who knew him was indicated by the number of people who attended the funeral, which was held from St. John's Catholic Church, Woodhull.

Anna Smiltz, local operator at the Green Bay exchange, has returned to her work after several weeks at the St. Vincent's Hospital, where she underwent an operation.

Louise Janssen and Katherine Lindsley, toll operators at Green Bay, resigned their positions to be married on November 26th.

Gertrude Bradford, toll supervisor at Green Bay, has resigned her position to take up other work.

Anna Haas, local operator at the Green Bay exchange, has undergone a serious operation at St. Vincent's Hospital, and expects to return to her work soon.

The plant department, assisted by the manager, has completed the installation of a No. 4 private branch exchange of six trunks and twenty-one stations at the Lauerma Brothers Company department store, Marinette. It replaces a smaller board.

G. H. Taylor, city foreman at Marinette, spent a week deer hunting in the north but failed to bag a deer. But he had a nice trip and is not discouraged.

The Marinette traffic department gave a Halloween party at the Moose hall, October 30th. The operators report a very enjoyable evening.

A cordless two by four exchange has been installed for the Lakeside Paper Company, Neenah.

A No. 4 private branch exchange equipped for thirty lines has been installed for the



OPERATORS AT RHINELANDER, WIS.

Upper row, left to right: Julia Ruggles, Sarah Blaisdell, chief operator; Rhene Cairnes. Lower row: Cora Ruggles, Nina Cairnes, Mae Woodman.

Kimberly-Clark Company's office building at Neenah.

C. Phieffer and crew have been engaged in stringing five new rural circuits and extending existing lines further into the Omro rural territory to provide facilities for fifty-one new subscribers.

C. H. Monahan has accepted a position as commercial agent at the Oshkosh Exchange.

Ralph Miller has returned to work at Oshkosh fully recovered from an accident to his foot.

R. P. Waters, installer at Oshkosh, has been absent on sick leave.

Richard Auman and Margaret Renk were married at the parsonage of the Oshkosh Lutheran Church on November 12th. After the ceremony they went to Berlin where a reception was held at the residence of Mrs. Sorenson. Mr. Auman is the cableman for the Appleton district. He and his bride will reside in Oshkosh.

Rose Fleischer, toll operator at the Clintonville exchange, has been promoted to chief operator.

Leola Remillard, local operator at the Sturgeon Bay exchange, resigned her position and on November 3rd was married to Louis Nelson. Miss Remillard was the sixth operator from the Sturgeon Bay exchange to be married last year.

Lillian MacDonald, clerk at the Sturgeon Bay Exchange, resigned her position on November 5th, and moved to Algoma.

Eau Claire District

Lillian Welsh, local operator at Bruce, resigned to be married and is succeeded by Emma Ewer.

Allie Smith, operator at Ladysmith, resigned and Hazel Kilgore has filled the position.

Elsie Ohlf is doing the relief operator's work at Ladysmith.

The Rusk County Rural Telephone Company at Ladysmith added another farmer line making a total of nineteen lines in all and expected to add two more by the first of the year.

E. Connolly, cableman, has been repairing cable trouble in Bayfield.

The Blue Bell Club at Merrill gave a private dancing party at Braun's Hall Thanks-

giving Eve. Delightful refreshments were served at twelve and dancing lasted until an early hour. The out of town guests were Mr. Parks of Stevens Point, the Misses Frances and Edna Frederickson of Antigo, Miss Jones of Rapid City, S. D., and Mr. Eastman of Minneapolis. Everyone present reported a most enjoyable evening.

Arthur Brown, repairman at Waupun, has been transferred to Merrill to succeed Mr. Horton, who has left the employ of the company.

Louise Braun, toll operator at Merrill, is ill with diphtheria at her home. Florence Freiberg is working in her place.

Janesville District

A Hotel System consisting of seventy-three stations has been completed in the Hotel Hilton at Beloit.

Olga Bakke has been employed as operator at Beloit, succeeding Mable Luebke, resigned. Agnes Cunningham, operator at Beloit, has been promoted to toll operator, succeeding Myrtle Dolan, resigned.

Mrs. John A. Hevey, clerk in the manager's office at Beloit, resigned as of January 1st. Mrs. Hevey will join her husband, who is traveling through Ohio.

W. N. Cash, manager at Beloit, returned the latter part of November from northern Wisconsin, bringing home a deer as a trophy of his hunt. Mr. Cash hunted in Vilas County and was in the woods but a day and a half, leaving when he had killed the one deer which the law permits. He reports that this one had his feet upon a fence and was "blatting" at him.

Extensive rebuilding is being done at the Beloit exchange under Foreman Benjamin Hansen. Over 80,000 feet of underground and aerial cable is being added at a cost of \$43,000 to take care of increase in business. The Western Electric Company is adding to the central office equipment.

Madison District

Carrie Winter, popular operator at Horicon, stole a march on her friends by going to Milwaukee where she was married to Robert Leonard, a railroad man.

Ohio Division

B. T. Calaway, Correspondent,
Columbus

Bug Bites Buckeyes

An epidemic of weddings with a long list of fatalities has been raging in the Ohio engineering department since November of 1912. The facts which hitherto have been made known piecemeal have been collected at last and are published here for the first time.

The Horrible Details.

The first germ, so far as a scientific investigation has revealed, was carried into the department by Toll Plant Engineer H. S. Berlin. Mr. Berlin's case ran the usual course, and from him the disease has spread throughout the department. For a time he acted as one in a dream. He lost all interest in his surroundings, his friends and even in his meals. Finally, knowing the end was near, he made known his wish that he be taken to Chicago for the last rites. He was removed to that place and married November 11, 1913, and the remains shortly after were returned to Columbus to live happily ever after.

The spread of the infection became evident when C. E. Pease, a draftsman, began to show signs of the malady. Hoping to benefit by a change of climate, Mr. Pease made a hurried trip to Newport, Ky., but after a brief stay he succumbed December 11th, less than a month after the first fatality.

E. E. Davis, the engineer's clerk, was shortly after given up by experts in charge of his case, and after great suffering he yielded. He was married December 30th. The obsequies took place in Columbus.

The breaking of spring was marked by two more cases. Fred Rennick and Charles Thomas, inspectors engaged in appraisal work, were taken from us shortly after the famous flood. Mr. Rennick was taken to Circleville and Mr. Thomas to Dayton.

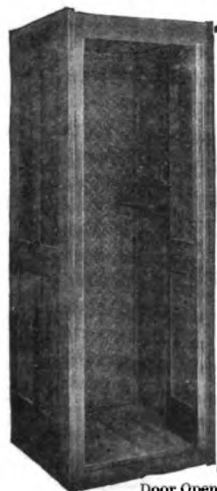
More recently cases have developed with alarming rapidity. Herbert Warfel, of the appraisal department, and H. W. Lindaman, of the exchange plant engineer's force, were stricken within less than three weeks. Mr. Warfel was removed to Indianapolis where the services were held August 24, 1913. Sidney Ernestine Hecker of that city was chief mourner. Mr. Lindaman on October 7th was called to his reward, which was Alice Leishman. The sad, solemn rites took place at Houston, Texas, where the reward lived.

The latest and most touching case is that of Victor Neff. Victor is assistant to Mr. Davis and is thought to have caught the fever from that source. He was afflicted at the tender age of nineteen years. Like his friend Mr. Pease he sought relief at Newport, Ky., but met with similar fate. He was married to Rhea E. Casto of Columbus, October 28, 1913.

Division Offices

C. E. Jones, who resigned his position in the engineering department to engage in the grocery business, severed his connection with that branch of commerce and returned to the service of the company early in November. He is a member of the equipment engineer's force.

Engineer Allard Smith is taking an active part in negotiations to obtain more effective cooperation among corporations operating electric wire plants in Columbus.



Door Open

The "French" Folding Door Telephone Booth

(Patent Pending)

Has been evolved after years of study and experimenting and is now offered as the "last word" in telephone booth construction. It embodies all the good points of the ordinary swing door and the more modern receding door booths, and eliminates the troublesome features of both types.

Write for booklet describing the advantages of the "Folding Door" Booth

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

DISTRIBUTORS:

Western Electric Company

Houses in all principal cities



Door Closed

Akron District

George P. Cogswell, commercial agent at Canton, secured three contracts for No. 2 private branch exchange systems during the first week of November, one with the General Stamping Company, consisting of two trunks and six stations; one with the Baer Office Supply Company, consisting of one trunk and five stations; and one with the Gordon Rubber Company, with one trunk and five stations.

A disastrous fire in the Woods block, Akron, almost totally destroyed the private branch exchange and all the stations of the Realty Benefit Company, very recently installed, consisting of two trunks and fourteen stations.

The plant department has recently completed the installation of a two-position test board, with a hospital position, which greatly adds to the testing facilities at Akron.

The many friends of Nellie DeMiller, Central Union toll operator at Wooster, are grieved to learn of her death on November 20th. She had been in the employ of the telephone company at Wooster for nearly twelve years.

Floyd Harley, frameman at Akron, has been confined to his residence on account of scarlet fever.

Charles Swickard, sub-foreman, at Akron, was unable to be at work for several days on account of an injury to one of his feet, caused by a fall.

Ossa Hargett, former clerk in the plant department, Canton, has taken the position of stenographer in the commercial department of that exchange, succeeding Grace Forehope, resigned.

Hazel Parker, former toll operator for the Black River Telephone Company, at Lorain, Ohio, has been transferred to Elyria as chief operator for the Central Union Telephone Company.

Samuel H. Kurtz has taken a position as collector at the Youngstown exchange, succeeding Frank S. Sheeders, resigned.

Columbus District

The following private branch exchange contracts were secured at the Columbus Exchange during November:

The Athletic Club of Columbus—Cordless Board, 2 Trunks, 5 Stations.

American Guaranty Company—No. 2, Intercommunicating, 1 Trunk, 5 Stations.

Fenton-Bard Shoe Company—No. 2, 1 Trunk, 5 Stations.

The Brightman Manufacturing Company—No. 2, 1 Trunk, 5 Stations.

Howard & Merriam Company, Architects—No. 2, 1 Trunk, 5 Stations.

The Drovers Union Stock Yards Company—No. 2, 1 Trunk, 5 Stations.

City National Bank—No. 2, 1 Trunk, 5 Stations.

The R. E. Jones Company, Funeral Directors—No. 2, 1 Trunk, 5 Stations, 1 Extension Bell.

The net gain for Columbus in November was 231, making 21,583 stations in Columbus December 1st.

The special newspaper service private lines furnished the *Columbus Evening Dispatch* and the *Columbus Citizen* during the baseball and football season was highly satisfactory, as it enabled the newspapers to have their sporting extras on the streets before the crowds could be cleared from the parks. Each paper had a private line to the press box at Nell Park during the baseball season, with terminals in the composing room and the linotype room, and the story of the game was set up as it was played. The same arrangement was made during the football season, with a private line to Ohio Field.

The Columbus Exchange will be represented in the City League with a basketball team, and as there is a lot of good material to pick from a pennant winner is expected.

Margaret Healy, night chief operator at Hilltop, resigned November 15th to be married. Her associates presented her with a handsome piece of cut glass.

Blanche VanHorn, operator at the East Office, died December 2d following a two months' illness. Death was due to tuberculosis.

On Wednesday evening, November 19th, "The Jolly Bachelor Girls" of the East Office entertained with a dance at Rader's Academy. The crowd had a good time. The next dance will be held January 28th.

Anna McTeague, East chief operator, has returned to duty after a week's illness.

The operators and wire chiefs of the various offices in Columbus united in giving a large contribution of food and money to the poor of Columbus on Thanksgiving Day.

Dayton District

The installation department, Dayton, has just completed a change from a fifty-line to an eighty-line No. 4 board at the Davis Sewing Machine Company, and another for the Dayton Engineering Laboratories Company, removing a thirty and putting in an eighty-line No. 4 board.

A contract has been secured from the Oakwood Street Railway Company for a No. 101 board with one trunk and six stations, and a No. 2 system with one trunk, and five stations, for the Dayton Electrical Manufacturing Company.

Foreman Mann of the installation department has just completed the moving of Rike-Kumler Company's board of six trunks and sixty stations from the sixth to the mezzanine floor, this move being made for advertising purposes.

At the new Y. W. C. A. the installation of a No. 4 board, consisting of four trunks and twelve stations, has just been completed.

On November 14th the Dayton Power and Light Company's 6600-volt Dayton-Carrollton line fell across our Centerville Toll Line, causing a total interruption to business.

Foreman Clark and six men have been transferred to the Cleveland Telephone Company temporarily. Foreman Darbyshire and his gang have also been in Cleveland on account of the sleet storm.

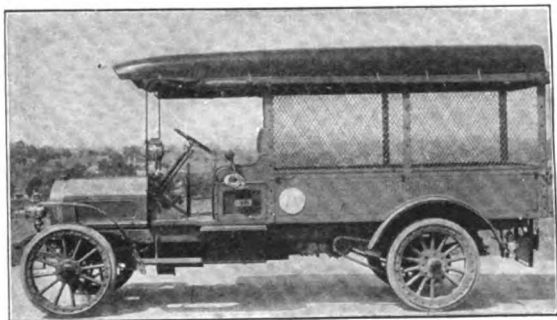
A 600-pair cable has been installed in the East Exchange district, Dayton, by Foreman Darbyshire.

A 600-pair cable is being installed from Main Exchange to Dayton View, which will relieve a congested condition in the rapidly growing territory. This work is also being done by Mr. Darbyshire.

Twenty-five additional No. 14-A terminals have been installed in Dayton View to relieve open wire leads.

C. M. Razor, chief clerk of the Dayton exchange, spent several days in Columbus, familiarizing himself with details in connection with centralized accounting. Dayton and sub-exchanges were centralized December 1st.

J. A. Bell, district plant chief, has taken unto himself a bride. After an extended wedding tour, during which they visited Washington, Baltimore, New York, Philadelphia and other places of interest in the

**100 Mack Trucks**

In Actual Service of **TELEGRAPH** and **TELEPHONE COMPANIES** Alone is the Mack's Surpassing Record.

Bell Telephone Co. of Pennsylvania
Chesapeake & Potomac Telephone Co.
Chicago Telephone Co.
Pacific Telegraph & Telephone Co.
Southern New England Telephone Co.
New York Telephone Co.

A few big users of Mack Trucks in a single industry.

International Motor Trucks
TRIUMPH OVER EVERY COMMERCIAL OBSTACLE

Mack and Saurer
TRUCKS FOR EVERY PURPOSE

International Motor Company

General Offices: Broadway and 57th St., NEW YORK

Special qualities of material and improved methods of working same is

Hussey-Binns Shovel Company's

success in the manufacture of their

INGOT PROCESS

one-piece shovels for strength and durability.

Try Them and Convince Yourself

HUSSEY-BINNS SHOVEL CO.

PITTSBURGH, PA.

See Full Description of Process in February Issue

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

A thought for the New Year!

Why has

Western Electric TELEPHONE APPARATUS

enjoyed the distinction of being an acknowledged standard for over thirty-five years?

Because it is made with just three things in view—quality, service and low upkeep costs.

Convey that thought to your friends in your territory and

Help to make 1914 a year to be remembered in telephone history.

Western Electric Company

East, Mr. and Mrs. Bell are now domiciled at 356 Forest avenue. Mrs. Bell was former chief operator at the Springfield exchange and receives the well wishes of her many friends and co-workers.

Toledo District

W. H. Stoker, manager of the McComb Home Telephone Company, at McComb, Ohio, met with a painful accident on Thanksgiving Day. He had the end of his little finger taken off in the machinery of his planing mill.

A private branch exchange contract has been taken with the Inter State Stock Yard Company, Toledo, for one trunk, switchboard and five stations.

G. W. Seaman, secretary of the Fremont Home Telephone Company at Fremont, Ohio, who has been on the sick list for some time, is again able to be about.

Fremont and Upper Sandusky exchanges have just completed the distribution of new exchange directories.

The submarine construction at the Cherry street bridge, Toledo, was completed early in December. The work provides a connection between the draw ends of the new bridge. There are three double-armored submarine cables, two of them of 400 and 200 pairs, respectively, and the third a composite made up of three quads of 13-gauge: twelve quads of 16-gauge for toll conductors and 115 pairs of 19-gauge for local trunks.

The Lima toll operators were recently entertained at the home of Martha Boseker. Dancing was enjoyed throughout the evening, after which an oyster supper was served.

Elizabeth Miller, toll operator at Lima, resigned November 15th and was married on November 25th to William Alsaugh.

Cleveland Division.

W. K. Lawrence, Correspondent.

Death of Joseph Thompson

JOSEPH THOMPSON, 35, combination repairman for the Cleveland Telephone Company, died December 16th.

While on a pole repairing some of the wires which were out of order on account of

the recent storm, Mr. Thompson came in contact with a heavily charged wire and was almost instantly killed. He was taken down by fellow employees and rushed to Charity hospital in an auto truck. An effort was made to save his life with a pulmotor, but all attempts were futile.

Mr. Thompson was with the Cleveland Telephone Company for about six years, and was very well liked by his superiors and associates.

Mrs. Thompson and son wish to thank the Cleveland Telephone Company and the Cleveland Telephone Company Employees Aid Society for sympathy extended, and also for the beautiful floral offerings.

A Standing Invitation

The Cleveland Telephone Company has issued a standing invitation to the public to visit the operating rooms any time between 8 a. m. and 5 p. m.

Upon entering the corridor of the telephone building on Saturday morning, December 6th, the employees beheld a sign bearing the following legend:

"Visit our operating room while you are here. Let us show you how your calls are answered. The visit will not take longer than five minutes. Guides will accompany you."

With Commercial Agents

L. A. Chapman received a nice order over the counter for a private branch exchange for the Clifton Company, 614 Perry-Payne building. The equipment will consist of a No. 4 switchboard, five trunk lines and six stations.

Through the efforts of Charles Ellert, the following contracts were secured for private branch exchanges: The Champion Register Company, 6925 Colfax avenue, a cordless switchboard, one trunk line and six stations. The Shenango Steamship Company, 848 Rockefeller building, a No. 2 switchboard, two trunk lines and seven stations. The J. W. Frazier Company twelfth floor the Illuminating building, a No. 4 switchboard, two trunk lines and six stations.

A contract for a private branch exchange which will consist of a No. 2 switchboard, one trunk line and six stations was secured by L. F. Barkhauer from Kornhauser & Morgan, 620 Citizens building.

Michigan Division

David H. Dodge, Correspondent,
Detroit

Mr. Slack's Meetings

The December meeting of the commercial department was held Monday evening, December 8th, and opened with a general discussion on contracts and transfer of contracts. The discussion led up to the present public sentiment in Detroit toward the telephone company and the practical use of metered service. Mr. Slack, district commercial manager, gave a very interesting talk on metered service, its use and its practical success in the larger cities of the country. Everyone left the meeting with a good understanding of metered service from the commercial viewpoint. The next meeting promises to be even more interesting, as Mr. Slack has prepared a course on efficiency, which will be of help to every employee of the commercial department.

Detroit Operators Dance

Operators of Traffic Chief A. M. Parent's office danced at Strasburg's academy November 25th. About 200 couples circled in the mazy whirl. They had a great time. Among the expert tangoliers were W. E. Spencer, J. T. Belanger, E. C. Laskey, Claude J. Murray, C. E. Culver and M. C. Glass. The last named found the floor too slippery and at one stage of the proceedings yielded to the effects of a sudden displacement of the center of gravity. Injuries not serious. Vocal solos by Misses Stevens and Broquet, of Walnut and Ridge offices, were much applauded.

P. B. X. Development in Detroit

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of November, 1913, were the following:

	Trunks.	St'ns.
Pfeiffer Brewing Co. (addit.)..	2	3
Davenport Apartments (new)...	2	101
Nimmo Spaulding Eddy, elec.		
supplies (new).....	2	4



TELEPHONE OPERATORS

and Stenographers

Save Your Clothes

By wearing our new Ideal

Circular Skirt Apron

REASONS WHY

*Entire length covering skirt.
It fits perfectly in back, fasten-
ing down side as in illustration.*

Some day you will wear one,
why not now?

Made of good quality black

sateen. Any waist measure to order.

Stock sizes 22 to 30 in. for immediate delivery by Parcel Post,
75c prepaid, anywhere in U. S. or Canada.

Extra Offer—12 Carmen Hair Nets, 1 Circular Skirt Apron, for \$1.00.

MAIL YOUR ORDER TODAY

WANTED Women Demonstrators in every office in Michigan, Wisconsin,
Indiana and Illinois, to take orders. Good money made during
spare hours. Write for sample enclosing price of apron.

CHAS. SCHIFF

423-25 W. 63rd St.

Chicago, Ill.



ELECTRICIANS

MAKE YOUR FASTENINGS PERMANENT.

Use SEBCO Expansion Bolts and
Screw Anchors; the quickest, neat-
est, most secure and substantial means
of fastening any kind of brace, bracket
or fixture to hard substances such as
brick, stone or concrete.

You drill a hole, insert the shield or
anchor, place your fixture and tighten
the bolt or screw.

SEBCO Expansion Bolts are used for
heavy work such as fastening motors,
large switch boards, cable hangers, etc.

SEBCO Screw Anchors are for lighter
work such as fastening bridle rings,
lamps, telephone sets, etc. They are
non-rusting.

Send for Samples and Catalog

**STAR EXPANSION
BOLT CO.**

147 Cedar St.,

NEW YORK



Harris Brothers, real estate (new).....	3	5
Cadillac Motor Car Co. (new)...	2	4
Berghoff Hotel (addit.).....	2	8
Peter Smith Heater Co. (new)...	4	5
Caughy-Swift Co., commission brokers (new).....	2	6
Scripps Motor Co., motor mfrs. (new).....	2	5
W. C. Piper Co., real estate (new).....	2	5
Armitage Leather Co. (new)...	2	5
T. K. Payne, atty. (new).....	2	5
Of the total of ten private branch ex-		

change contracts obtained during November, eight were secured by Floyd H. Lockwood, two by Dare S. Burke. The new contracts and the "additional" supplied a total of 166 new stations for Detroit during November.

Detroit District

Operators of the Grand and Cadillac offices will give a ball at the Strasburg's Academy January 8th.

Albert Douglas, formerly of the American Telephone and Telegraph Company, has been transferred to the commercial department at

Detroit and is assigned to railroad telephone work.

Hazel McCreedy, an operator at the Detroit building board, resigned December 5th, much to the regret of everybody in the Main building.

Work is proceeding rapidly in the retirement of duplicate plant left after the "Home" cut-over. Much has been done on small work orders and now the work is scheduled to proceed under regular estimates. The first estimate, for the Hemlock exchange area, has been approved and this work is going forward. Estimates have been made up for the North and Hickory area and the others will follow. Several large estimates for subscribers' cable have been approved. Work on a new trunk cable from Cadillac to East, to cost \$12,421, began December 1st.

E. L. Barrows, who has been in various departments, has resigned to join the Continental Motor Manufacturing Company.

William Rideout, of the roadways company department, was recently the victim of an accident which might have been serious. He was struck by a street car, and now limps a little. He is at present helping in the collection department office.

Arthur Lane of Detroit has taken a position as switchboard man at Ann Arbor.

Bud Carroll of the plant department of Detroit, stationed at Ann Arbor, was married to Agnes Barrett of Grand Rapids November 17th.

Percy Judd, formerly switchboard man at Ann Arbor, has been promoted to wire chief.

A subscriber presented the girls of the Ann Arbor exchange with a bushel of California apples on Thanksgiving Day.

Bessie Freeman, cashier at Ypsilanti, was transferred to cashier at Ann Arbor.

Rosamond Brow, for the past seven years cashier of the Ypsilanti exchange, but of late relief chief operator in the Ann Arbor exchange, resigned to become cashier at Delta.

Margaret Allmand, formerly local supervisor in the Hemlock office, Detroit, has taken a position in the Ann Arbor exchange.

Amanda Schneider, local operator at Ann Arbor, has been promoted to toll supervisor.

Bert N. Wilcox, wire chief of the Ypsilanti exchange, was married November 8th to Edith Harris, also of Ypsilanti.



TELEPHONE FLOAT AT BATTLE CREEK, MICH.



OPERATORS' DANCE AT DETROIT, NOVEMBER 25, 1913.

Gertrude Harris has been promoted from operator to evening supervisor at the Walnut office.

Beatrice Teahan has been promoted from senior operator to a supervisor, Cedar office.

Edith Polhamas, main office supervisor, has been promoted to floor monitor at the North office.

The company has been very fortunate in securing the services of Miss M. S. Burnell, a trained nurse and graduate of Harper Hospital, 1913, to take charge of the welfare work in the Detroit offices. Miss Burnell is very anxious to be of service to the employees.

A cafe has been opened in the Grand office, much to the delight of the operators. Mrs. Minkler has been appointed matron.

The winning divisions of some of the offices have been taking advantage of the good plays at the theaters. The winning Main fifth A division enjoyed "Peg O' My Heart" at the Garrick theater, the winning Cherry second A division went to the Detroit theater and saw "The Secret." Etta Black, supervisor of the winning second Main, accompanied her girls to the Garrick, where they enjoyed "Peg O' My Heart." Ethel Eshmann, monitor, was also with them. Miss Cahill, supervisor of the winning fifth A division of the North office, accompanied her

girls to the Washington theater, where "The Leper" was being played. Mae Durkin, Hemlock exchange, was one of the party that enjoyed "Peg O' My Heart" at the Garrick with the two winning divisions, and their supervisor, Mable Dann, winning second B and Mabel Wohl winning third A. The Walnut office, fourth day A section and the first B evening were prize winners and enjoyed a theater party at the Garrick.

Bessie Love and Edna Naumann have returned to their duties at the Hemlock office after recovery from illnesses.

Gertrude Hayes is back at work again at the Hickory office, after a serious illness.

Several East operators who have been in hospitals are on the road to speedy recovery, among them Isabel Logan, who is in our midst again after being away for about three months. Hattie Kraus and Lillian Smith are still away but are doing very nicely. Florence Peterson is at home now but is expected to return to work soon.

Mildred Horn has been promoted from senior operator to a regular day supervisor at East. She entertained her operators at her home, her section being first in last month's contest. Every one had a delightful time. Margaret Decker ended the program by jumping off the car and spraining her ankle.

Eastern District

Eastern district crews have completed installation of a No. 4 private branch exchange at the Pennsylvania Salt Company Works, Wyandotte.

Plants of the Michigan State Telephone Company and Wayne County Telephone Company at Plymouth have been consolidated and the combined exchange was cut over November 30th.

Work is about to be started on the estimate for partial reconstruction of outside plant of both the Michigan State and recently acquired Macomb County Company in Mt. Clemens. When the work is completed and duplicate plant removed the exchange will be a model.

Foreman Monce and crew have completed the underground work in Mt. Clemens and gone to Plymouth.

Construction Foreman William Farris began work in Mt. Clemens December 5th on the estimate for new outside plant.

Foreman E. McGonigle arrived in Mt. Clemens December 5th to begin work on the main frame preparatory to removal to the new building.

Margaret Haller, evening chief operator

Sterling Built to give and gives the kind of service which contractors have long waited for.

Contractors' Barrow Its easy wheeling and long-lasting qualities give the highest degree of satisfaction. It will hold over twice the load of ordinary pan-shaped barrows and will oulast two similar style barrows of any other make.

Among its desirable features are:

- Channel steel legs—16 gauge steel tray—angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.

Highest Grade of Inside and Outside TELEPHONE WIRE

☞ Made in accordance with the specifications of the Western Electric Company or those of any other customer.

The Electric Cable Company

17 Battery Place, New York

Boston
Philadelphia

Chicago
St. Louis

Cleveland
San Francisco

Works: Bridgeport, Conn.

You Can Save Time and Money



By Equipping Your Office With **UNEDIT CLIPS**

They are easily applied, hold
securely and will reduce your
mailing and filing expense.

Manufactured by

Buffalo Machine Mfg. Co.

1354-1362 West Ave.

Buffalo, N. Y.

at Mount Clemens, has been transferred to the information desk.

Eliza Cook, former toll operator at Mt. Clemens, has returned to the exchange and is on relief duty.

The cut-over to the new Mt. Clemens exchange is scheduled for soon after the holidays.

Helen Harris entertained a company of friends at a "stag" party October 30th. The house was beautifully decorated, the Halloween effect being carried out by the lighting, which consisted of pumpkins and imitation bonfires. Delicious refreshments were served and a few snaps taken of the merry crowd. Susie Parker and Stella Freer were most charming young "men," proving themselves very gallant to the few young ladies present.

Florence McMillan, who recently underwent a serious operation for appendicitis, is now on the road to recovery. Lucille Mohney is temporarily taking her place as operator at the Otsego Hotel, Jackson.

Gladys Nysewander was compelled to resign her position as toll operator at Jackson because of the illness of her mother in Cassopolis.

Lena English has been reinstated as toll operator at Jackson.

Mary Reams, Idamae Arnstein, Elzina Speer, Mae Weathers, Ruth Cheney, Mae Watson, Hazel Schultz, Margaret Dutton and Mabel Herrington are names of operators recently entering service at the Jackson exchange.

District installers have completed a change in private branch exchange equipment at the Otsego Hotel in Jackson. This gives the Otsego Hotel one of the finest hotel systems in the Eastern district.

The toll station at Petersburg was discontinued November 17th. Toll lines have been connected with the exchange of the Deerfield Farmers' Telephone Company and business will be checked through Monroe.

The Pleasant View, Clarks Lake toll station, has been discontinued for the season.

Grand Rapids District

About midnight November 21-22d an oil lamp in use at the Richland exchange exploded. The lamp was situated near the switchboard, which quickly took fire. Mrs. Humphries, wife of the former manager, with great promptness and at considerable personal risk utilized a fire extinguisher and was able with the assistance of Mr. Stubbs,

now manager at that point, to extinguish the flames before serious damage had been done to the apparatus or office quarters. Without doubt the prompt action on the part of Mrs. Humphries resulted in preventing a very large loss, as the switchboard and building would have been quickly destroyed. The service was not interrupted.

G. L. Cleveland, manager at Albion, has accepted a position with the plant department at Grand Rapids. He is succeeded by W. H. Sullivan, manager at Dawaglac. Manager T. E. Humphries has been promoted from Richland to Dowaglac. Mr. Stubbs succeeds Mr. Humphries at

Richland, promoted from the plant department at Kalamazoo. In these changes Albion becomes the headquarters of a new exchange area which includes the Marshall exchange and the Springport and Devereaux toll stations.

Sanna Lien, clerk in the commercial office at Grand Rapids, died December 2d of typhoid fever. Miss Lien was ill three weeks. She was one of the most painstaking, faithful and valued employees of the Grand Rapids office. Miss Lien was an active member of the Trinity English Lutheran church. The funeral was held Friday, December 5th, at two o'clock.

James De Laney has been appointed manager at Freeport toll station, succeeding Peter Godfrey.

Emma VanScriver succeeds Mrs. H. Dean, resigned, as manager of the Hopkins exchange.

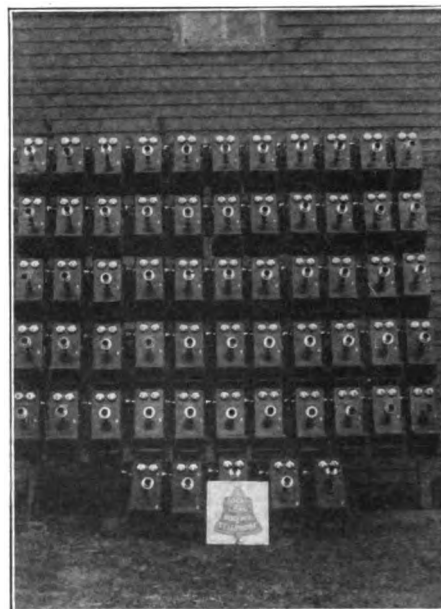
J. Dickerson succeeds I. Slocum, resigned, as manager of the Lakeview toll station.

The delivery of the new Grand Rapids directory was completed December 6th. This is one of the best books ever published for the Grand Rapids exchange. The delivery, under the able management of Fred Saunders, chief commercial agent, was completed in three days. This included city and farm line subscribers.

R. T. White, special agent of District Commercial Manager C. E. Wilde, left December 15th for an extended trip through the East. Mr. White visited Cleveland, Pittsburg, Philadelphia, Washington, New York City and his old home in Vermont.

The local plant force at Jackson has been doing extensive repairs on toll lines in this area and it is expected to reduce toll trouble considerably. The most extensive repairs are on the Jackson-Grand Rapids lead between Rives Junction and Eaton Rapids, and consist of replacing defective cross arms, setting new poles, etc. Messrs. Gooding, Gainer and Jacoby are at present installing a new power ringing machine at the Jackson exchange to replace the old 250-volt ringing machine.

The Western Electric installers at Kalamazoo, under the direction of Chief Installer Moon, have just finished an extensive job of rebuilding and adding to the local switchboard. They have been on the ground three months, having added in that time three local sections of switchboard, raised the roof



AT MANCHESTER, MICH.

This shows the way the farmers take to roadway service. These instruments are ready to be installed on contracts taken by Commercial Agent William Rideout and Manager Graham.

to accommodate 1,200 additional multiple, and rebuilt a good share of the existing local board.

The growth in Kalamazoo has been remarkably rapid. The volume of traffic and operators' loads has increased in proportion until the board reached a high degree of super-saturation. This made efficient operating during busy hours practically impossible. However, the new work provides for future growth and makes possible a more reasonable saturation from a traffic standpoint. Material is now on hand and Installer Moon is ready to put in new toll board equipment at Kalamazoo. In connection with all these additions and betterments, the Kalamazoo local chief operator spent a week at the district headquarters in Grand Rapids, going over standard practices and exchanging ideas. Bernice Gilio, toll instructor from the district headquarters at Grand Rapids, conducted a thorough course of toll instruction at Kalamazoo.

Multiple marking operating was inaugurated in Battle Creek during November, one position being equipped for a multiple marking operator.

Private branch exchange equipment has been placed in Wurzburg's Department Store, at the Wilmarth Show Case Company, at Grand Rapids, and at the West Michigan Furniture Company, Holland. The Wurzburg Company is an old established business which has just moved into a large new fire-proof structure, making it one of the largest department stores in Western Michigan; the equipment installed consists of two trunks and ten terminals. The Wilmarth Show Case Company is one of those progressive furniture manufacturing establishments which has made Grand Rapids famous; its equipment

Partridge & Anderson
Designers
Engravers
Electrotypers
Stereotypers
ENGRAVINGS IN THIS PUBLICATION
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
100-16 N. Fifth Ave. Chicago
AUTOMATIC 31-757 31-758

ELECTROSE
TRADE MARK
INSULATION
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES.

INSULATORS 1,000 TO 1,000,000 VOLTS

No. 2 No. 1 No. 7
No. 305 New No. 10 Old No. 10
No. 14 No. 362

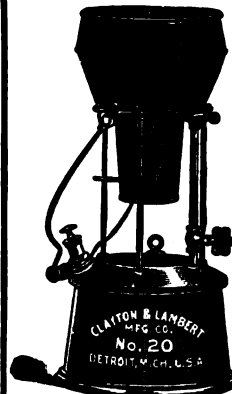
LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
66-72 Washington St. BROOKLYN, N. Y.
66-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES

"Beldenite" Rubber Insulated Telephone Wires

We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Taps and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue, CHICAGO



No. 20—Coil Fire Pot
Price Each—\$4.00 Net

Cheap Imitations

always cause trouble, loss of time, materials and money. We believe that articles like Torches and Fire Pots should be made just as good as it is possible to do by the maker, because in the operation of each Torch and Fire Pot it is necessary to use gasoline or kerosene as fuel under pressure. The "C. & L." has stood the test and is considered the standard in quality by all mechanics who have used them.

All leading jobbers will supply at factory price, or we will ship direct if cash accompanies the order. Send for Catalog—it's free.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A.

consists of two trunks and thirteen terminals. The equipment of the West Michigan Furniture Company at Holland consists of one trunk, five terminals and five extensions.

The toll station at Hatch has been discontinued. Hatch becomes a Class D office under Traverse City.

Mrs. Elsie Forshee has succeeded Mrs. P. A. Matthews as manager of Conway toll station.

Claude Wiley has succeeded Dr. Watley as manager of the Blanchard toll station.

L. E. Nelson has succeeded J. R. Tomlinson as toll station manager at Platte Junction.

F. A. Griggs has been appointed toll station manager at Gourdneck, succeeding Charles Weaver.

Marquette District

James Block, district inspector, has been appointed district correspondent for the BELL TELEPHONE NEWS. The Michigan editor and the Chicago editor unite in promising Mr. Block a champagne breakfast the first time all three happen to get together. Send items to Mr. Block.

O. Sundquist, manager at Escanaba; D. I. Dixon, manager at Monominee; and E. J.

Larsen, special commercial agent, spent a week hunting big game in the woods west of Escanaba.

James Block, district inspector, spent several days in Chicago and southern points, also taking in some of the college football games.

During the severe storms of November 7th, 8th, 9th and 10th, which old-timers say were the worst ever experienced in this section, ten poles east of the Marquette branch prison were blown down, taking with them the Detroit, St. Ignace and Sault Ste. Marie toll lines. These lines are near the lake and, with no protection from the wind and with the waves dashing on the banks it was no easy task to get the lines back into service.

W. H. Larson, district plant clerk, spent Thanksgiving day in the woods near Big Bay. Although he went after big game it is reported that he almost got one rabbit. He got wet, however, by falling twice into Lake Superior.

"Dad" Leeman, janitor at Marquette, bagged two fine deer near Pickerel Lake. They say in the old days when the law allowed ten to be killed, "Dad" usually was able to kill the limit of his license.

Hunters in the northern woods after big game have been doing the usual damage to toll lines, breaking insulators and sometimes taking off an entire pin with their high-powered rifles.

C. E. Shultes, cableman at Ishpeming, gave a venison supper to a number of his friends. It is presumed that C. E. shot the game himself as he spent two days in the woods.

The new through circuit, No. 5409, of No. 12 copper, between Houghton and Ironwood, has been completed by Foreman Davis and is in working order.

Ironwood has issued a new directory which includes subscribers of Bessemer and Wakefield, Mich., and Hurley, Wis. Ironwood is rapidly being improved and a new building is planned for next spring.

The following from the *Mining Journal* outlines some of the work being done in Ishpeming and Negaunee: "The Michigan State Telephone Company, which has for several weeks had men at work overhauling its system in this end of the county, preparatory to the complete abandonment of the Marquette County Telephone Company, yesterday increased its force in Ishpeming, when a crew of about fifteen men, who had been employed in Negaunee, was transferred here. Twenty-five men or more are now busy on construction work here. The work in Negaunee has not been finished but the plant there is now in much better condition than the Ishpeming plant, and the big crew will be kept here until the outside work is finished. If the weather is not rough through December it is expected that the outside work in Ishpeming will be finished by the first of the year. Practically all of the Bell telephones are now cut into the new cables, and the county phones will be cut in at once. It is expected that this work will be finished by the time the outside improvements are completed, so that the company will be in a position to close the county central station on or about the first of the year. The company's Ishpeming headquarters will remain in the Toney block, on South Main street. The Marquette County station is in the Miner's bank building. As soon as the county phones are cut into the new cables the workmen will begin removing the equipment from the Marquette County office. The number of subscribers in both Ishpeming and Negaunee is increasing, although no soliciting is being done. Last week eight new telephones were installed in Negaunee and three in Ishpeming. There are now about 736 subscribers in this city and 439 in Negaunee. The work in Negaunee is finished with the exception of the toll line cable. Work will begin on this

as soon as cable is received. A new directory will be issued the first of the year and will have all cut-over lines in it. Owing to reconstruction work over 300 numbers will have to be changed in the local office."

Saginaw District

A toll test panel is being installed at Bay City. The estimate covering installation of additional central-office equipment was completed November 6th.

Among organization changes in the Saginaw district are the following:

Don Barker, appointed district equipment man, succeeding Harry J. Westendorf, resigned; Duff Durcotte appointed manager at Flushing, succeeding Floyd Byrnes, resigned; J. R. Barkman transferred from the position of plant man at Alma to the position of manager at Breckenridge; Margaret Callahan appointed assistant chief operator at Flint, succeeding Mrs. Catherine Jenner, resigned.

Eula Keelin, manager and operator at Corunna, was married to Charles Russell at Owosso.

Marie Despond, cashier at Owosso, resigned to be married. Ruth Despond was appointed to fill the vacancy.

The tenth annual autumn party of the Saginaw operators was given at the Masonic Temple, and eighty-five couples, including guests from several other cities, enjoyed the dancing. The hall presented an attractive appearance with the colors of the telephone girls' club, blue and white, combined most effectively with Halloween decorations. The guests enjoyed themselves so thoroughly that the hour for bringing the affair to a close was extended from twelve until one.

Port Huron girls are much pleased with an enthusiastic, if belated, tribute to their good work during the heavy storm of November, which appeared in the *Port Huron Times-Herald* November 18th. The paper said: "This is but a little story of appreciation and commendation for the alertness, promptness and courtesy displayed by the telephone operators following the severe storm and its unparalleled incidents of death and disaster. The story should have been written several days ago, but in view of the big wreck stories which were coming into this office every hour, it was delayed but not forgotten. It is never too late to say a kind word about a deserving act. With crippled wires and other inconveniences to contend with the young ladies at the telephone office worked at their tasks with a promptness and dispatch that was as pleasing as it was remarkable. Perhaps no one appreciated more the valuable assistance and patience of the little 'hello' girl, than did the tired newspaper men, who have been constantly on duty since the storm broke last Sunday. During the week thousands of long-distance and local messages have been handled by the night and day force of pleasant voiced 'hello' girls. To say that they did their work with a vim and courtesy that commands admiration, is all the commendation that is desired. There is, however, a moral to be drawn from the strenuous work of the week, which applies directly to the patrons of the telephone company, who are accustomed to exercise their temper instead of their head. Patience is a great virtue, but its power was never more appreciated than when used in connection with the telephone. Remember the little 'hello' girl at the other end of the wire is not only human, but she is going to get your connection just as soon as possible, for that is her business and she has no object in doing otherwise. Patience, the 'hello' girl, and the newspaper men have worked well together in the past week and a great deal of the credit is due to the little girl who takes your number over the 'phone.'"



A NEW "MOTORCYCLE MIKE."

Leon Karker, of the Niles exchange, has proved himself to be a rival of the famous "Motorcycle Mike." Mr. Karker, while out on farm-line work recently, was riding over an exceptionally sandy road when the chain on his motorcycle broke and punctured the oil tank. For a time it appeared as though he would have to compete with Weston by pushing the Indian six miles into town, but, after looking over the condition he was in, he called the manager for advice. He was advised to take out the links of the brake chain in order to repair the other one. This was done, and in the course of about an hour Mr. Karker arrived in Niles. To start his machine it was necessary for him to run and jump on, as it could not be cranked after the chain was taken off. The ride into town was a record breaker. The accompanying picture shows the frame of mind he was in upon his reaching Niles safely, but we do not dare print or whisper the things he thought when he was many miles away.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

**Yards from Maine
to Washington**

**National Pole
Company**

Escanaba, Michigan

When you want a Lock
you want the best.

**EAGLE
LOCK
CO.**

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



**"Thomas Quality"
Porcelain Insulators**

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



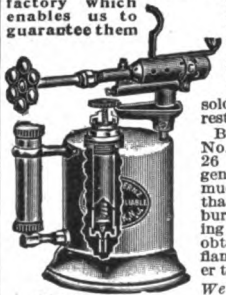
Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by
Western Electric Company

Offices in all principal cities

"Always Reliable Torches"

Are the best on the market. They
are thoroughly tested before leaving
factory which enables us to
guarantee them



Fitted with
PATENT-
ED "never
leak" pump
and PAT-
ENTED
"one piece"
soldering iron
rest.

Burners on
No. 25 and No.
26 torches
generate gas
much quicker
than other
burners, enab-
ling the user to
obtain a blue
flame in a short-
er time.

We also manu-
facture a com-
plete line of fur-
naces especially adapted for the use of
telephone and telegraph companies.
Manufactured by
OTTO BERNZ, Newark, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



No. 2521	Each
Doz. lots	20c
100 "	12½
500 "	11
	10

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY

Incorporated 1911

**ALBERT G.
SEEBOTH
COMPANY**

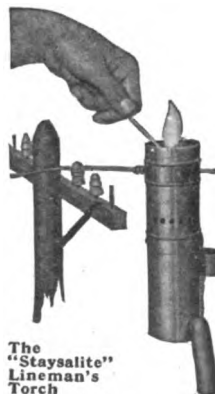
MILWAUKEE, WIS.

Manufacturers of

**Cotton Batts, Cotton
and Woolen Waste**

Phone South 532

Place your orders with us,
we save you money.



The
"Staysalite"
Lineman's
Torch
(burns alcohol)

**Just The Thing
for
All Kinds of Light
Soldering**

Handy Outfit for Electricians,
Mechanics, Wiremen

A positive boon to

The LINEMAN

Light in weight, compact, can be carried in
lineman's belt or bag. Always ready for use.

Write for Free Pocket Tool Guide

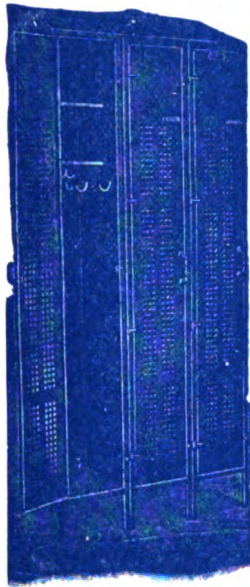
M. Klein & Sons
Canal Station 62 Chicago
Telephone Wabash 628

ADVERTISING

In the

**Bell Telephone
News**

**BRINGS
RESULTS**



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

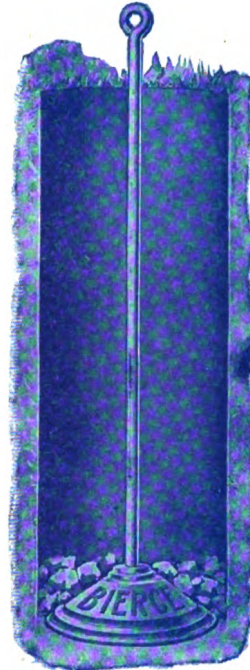
We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

TAKE NOTICE



Pat. Aug. 19, '13

The **Bierce Anchor** has been approved by the A. T. & T. Co., of New York.

The Bell Companies of Ohio, Indiana, Michigan, Illinois and Wisconsin have been using Bierce Anchors for months past. Ask the Bell man in your territory.

Costs less, holds more, will not creep, and can be buried quicker than any other anchor.

Sent on approval.

Write us.

THE SPECIALTY DEVICE CO.
112 West Third Street, CINCINNATI, OHIO

**HAVE HOT WATER
ALL WINTER**

BY SPECIFYING

THE "ILLINOIS" Hot Water Heater



Magazine Feed

For **HARD** or
SOFT COAL

**EFFICIENT
'AND
DURABLE**

**KEEPS FIRE
OVER NIGHT**

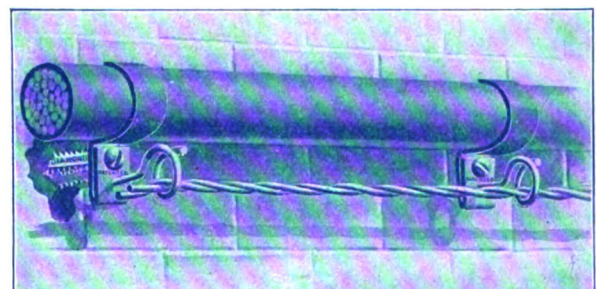
Illinois Malleable Iron Co.
CHICAGO, ILLINOIS

Also manufacturers of a complete line of
Malleable and Cast Iron Pipe Fittings.

"LONG SAUT" Combination Cable Clamps and Bridle Rings

The "LONG SAUT" Cable Clamp used in combination with machine thread Bridle Rings and Diamond Expansion Shields or Screw Anchors has solved the problem of the most economical and efficient method of fastening both lead covered cables and parallel runs of bridle wires in that form of telephone construction known as

"Interior Block Distribution"



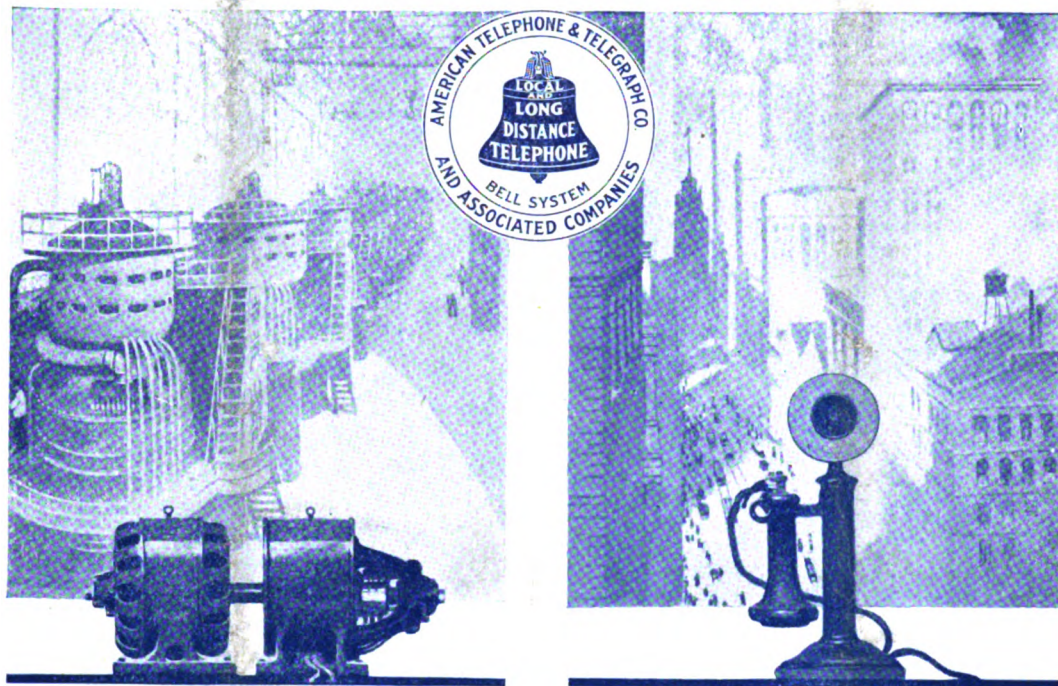
Method of attaching lead cable and parallel run of bridle wire with "LONG SAUT" Cable Clamp. Both are securely fastened with one "SAUT" attachment.

Diamond Expansion Bolt Co.

MANUFACTURERS OF
DIAMOND SPECIALTIES

90 West Street

NEW YORK



The Energizer of Business

IN a metropolitan power-house there must be generators large enough to furnish millions of lights and provide electrical current for thousands of cars and factories.

Each monster machine with the power of tens of thousands of horses is energized by an unobtrusive little dynamo, which is technically known as an "exciter."

This exciter by its electric impulse through all the coils of the

generator brings the whole mechanism into life and activity.

A similar service is performed for the great agencies of business and industry by the telephones of the Bell System. They carry the currents of communication everywhere to energize our intricate social and business mechanism.

United for universal service, Bell Telephones give maximum efficiency to the big generators of production and commerce.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

February, 1914

No. 7

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

JANUARY 1, 1914

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	507,107	252,657	759,764
INDIANA	87,526	177,211	264,737
OHIO	173,219	184,833	358,052
MICHIGAN	201,456	59,989	261,445
WISCONSIN	<u>135,739</u>	<u>115,357</u>	<u>251,096</u>
	1,105,047	790,047	1,895,094

BELL • TELEPHONE • NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., FEBRUARY, 1914

Number 7

Chicago's First Municipal Christmas Tree Erected by Chicago Telephone Company

Bell Plant Men Join with Edison Forces in Providing Magnificent Spectacle for Holiday Week.

While no less than 100,000 people enjoyed the unique spectacle presented by Chicago's municipal Christmas tree, it is doubtful if more than a handful of this vast throng knew anything about how the great tree was constructed and erected and to whom they were indebted for the mechanical success of the enterprise. This credit is due jointly to the Chicago Telephone Company and the Commonwealth Edison Company—not forgetting, of course, a man in Michigan who contributed the tree and a decorating company which put on the gorgeous spangles. The telephone company erected the tree, supplying the poles which formed its base and artificial trunk and the labor required to put it securely into place. The Edison Company furnished the lighting.

The tree was erected in Grant Park. On Christmas Eve was held the first municipal Christmas festival. Michigan avenue, from Madison to Monroe street, was packed with men, women and children, from the west sidewalk clear to the line of the Christmas tree and arches.

From three sides there was almost continuous music for more than an hour. At the north the Chicago Band played; at the west stars of the Chicago Grand Opera Company sang solos, and the Paulist Choir covered itself with glory.

From the south came the strains of splendid choral singing by the chorus of the Chicago Grand Opera Company, while at intervals each number was varied with a rattling fanfare of trumpets by the trumpeters of the grand opera company.

Over to the east was the Christmas tree, rising seventy-five feet in the air, a mass of electric lights and surmounted by a splendid big star, which to the thousands in the street must certainly have been symbolic of the Star of the East many centuries ago.

Behind the tree rose nine huge arches, each outlined in electric light, and in front were myriads of burning colored lights, the smoke rising in billowing masses through which the lights on the tree shone in fantastic shape.

At 6 o'clock Mayor Harrison entered the park and approached the base of the big tree, escorted by mounted police and buglers from the First Cavalry. He made a short speech and pressed a button. Instantly the tree, the arches and also myriads of

lights on the Art Institute flashed and as quickly a deafening roar of applause sprang from the crowd.

Then the Chicago Band struck up the "Salute of the Nations," a medley of national airs, and the last note had scarcely died away when Father William J. Finn raised his arm on the third floor balcony of the Chicago Athletic Association and instantly there floated over the crowd the strains of the century-old carol:

"What child is this,
Who laid to rest?"

Another roar of applause greeted the carol. hushed a moment later as one of the powerful searchlights was again turned on the balcony and revealed Henri Scott of the Chicago Grand Opera Company standing with a huge megaphone in his hands.

Raising it to a level with his face he began to sing and once more the crowd was thrilled, for the stirring strains of the Toreador song from "Carmen" rang out through the night.

As Mr. Scott bowed his acknowledgment of the applause, out upon the balcony stepped twelve men in strange garb, not unlike that worn by the three wise men of old who came bearing gifts to the Bethlehem manger. They were the trumpeters of the grand opera company wearing the costumes of the opera "Aida," the scene of which is laid in ancient Egypt, and with staccato sharpness came the notes of a military welcome salute.

The opera company continued a program such as is seldom heard outside of great opera houses. At length the band struck up "The Star Spangled Banner," in which 100,000 voices joined.

The tree was kept lighted every night for a week.

While the tree presented the appearance of a beautiful evergreen about seventy-five feet high, it was in reality only forty feet, the added height being secured by a core of three fifty-foot telephone poles set in concrete and guyed on four sides. On

the top of these poles the tree was securely fastened and the sides filled out with smaller trees. The construction, lighting and decorating of the tree were without expense to the city.

The success of the affair was very gratifying to the Christmas Festival Committee and it is predicted that some kind of a municipal Christmas celebration will be given every year hereafter.



CHICAGO MUNICIPAL CHRISTMAS TREE.

The Western Electric Company's Place in the Bell System

Synopsis of a Paper by Gerard Swope, Vice President of the Western Electric Company—Reprinted from Western Electric News

The growth of the close and cordial relations between the associate telephone companies and the Western Electric Company, although spread over several decades, has, within the last few years, become so pronounced as to be recognizable to almost every employe of both companies. This has been due largely to the contract relationship under which the Western Electric Company is now acting as the purchasing agent and supply department of every Bell telephone company and many other telephone companies in the United States, and for the Western Union Telegraph Company. Such contract relations have not been confined to the Bell Companies, and the Western Electric Company is prepared to enter into similar contracts with any company, which, on account of the nature of its business, the Western Electric Company can serve to mutual advantage.

The contract made between the American Bell Telephone Company and the Western Electric Company in 1881 provided that the Western Electric Company should make all of the telephones of the American Bell Telephone Company, and otherwise should not make telephones for use in the United States; and that it should make and sell other telephonic apparatus for the licensed companies, and otherwise should not sell telephonic apparatus in the United States. It did not provide that the licensed companies should buy exclusively of the Western Electric Company. Upwards of six years ago the original contract between the American Bell Telephone Company and the Western Electric Company was still further modified, enabling the Western Electric Company to sell telephone apparatus to other than licensed companies.

The manufacturing company was thus left in open competition for the business of the licensed companies. In connection with the sale of its other manufactures, the Western Electric Company gradually built up a large business in the field of line material and other supplies not of its own manufacture. As it developed that the Western Electric Company could purchase these supplies and sell them to the operating companies at better prices than as individual companies, they could buy their own supplies in the open market, this company soon became the largest buyer in the country of such supplies, and a natural foundation was laid for the existing supply contract relationship which followed.

The standard form of contract concentrates in the Western Electric Company the responsibility for all of the purchasing. It enables it to secure for those companies under contract the advantages of quantity in buying, and the ability to maintain a corps of specialists in buying, warehousing and distributing which no single operating company could maintain. For the operating companies it has made considerable savings in the first costs of supplies and for the Bell System as a whole it has done much in standardizing plant and decreasing investment, and made large savings in freight charges through better plans of distribution.

The American Telephone and Telegraph Company furnishes the Western Electric Company with specifications as

to the types and quantity of material required in the service of the associated companies. It furnishes to it in December of each year a general statement of the quantity of material required by the companies during the following year. This enables it not only to plan in advance the volume of its manufactures during the year, but as well its contracts covering purchases of supplies, and in general, to make comprehensive plans for the distribution of such material through its General Sales Department, the factories of its suppliers, and its own chain of distributing houses.

THE WESTERN ELECTRIC COMPANY AS THE MANUFACTURING BRANCH OF THE BELL SYSTEM.

The work of the Western Electric Company in connection with the Bell System naturally divides itself into two main divisions:

1. As part of the Engineering Department, and the Manufacturing Branch of the Bell System.

2. As the Purchasing and Supply Department of the Bell System.

The first function, under which it designs and manufactures apparatus, is one that it performed before the introduction of the purchasing and supply contracts, and which it can still be considered to perform, independent of these contract relations. Its relations with the operating telephone companies as a manufacturer are the same as any other manufacturer who supplies apparatus or merchandise in accordance with the specifications laid down by the engineering department of

the American Telephone and Telegraph Company.

Careful studies of its prices on telephone apparatus as compared with those of its competitors in the United States and abroad are continually being made. In no case does it sell the same apparatus to any one in any quantity at prices lower than it does to any of the associate companies. That its prices are reasonable is proven by the fact that in open competition for business in the United States during the past five years it has secured an ever increasing share of the business. Further evidence of the reasonableness of the prices on its own manufactures is to be had in Europe, where, in the face of not only keen competition, but also a strong chauvinistic spirit, it has obtained a fair proportion of the business.

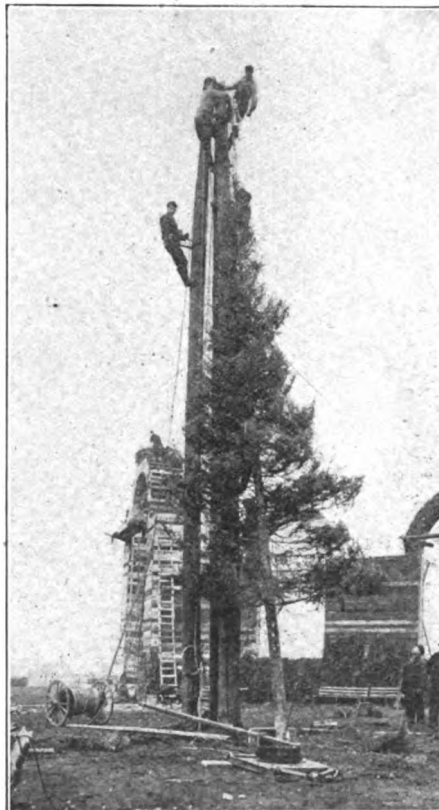
A recent detailed study and comparison of prices on its purchases was made by one of the operating companies. It indicated that by buying the products manufactured by the Western Electric Company it had effected a total net saving of nine per cent. Such comparative studies of prices make no allowance for the superior quality of Western Electric manufactures, but it is reasonable that its apparatus and cable should be better than the products of its competitors, with the aid which it receives from the experience of the operating companies themselves, and the expert advice and supervision of the engineers of the American Telephone and Telegraph Company.

In addition to the superior quality of the apparatus is its uniformity in design. The Western Electric Company is constantly making studies of costs on the various lines it manufactures, as a result of which new designs and improved methods of manufacture are introduced. In the past five years of advancing prices of labor and material, prices for telephone apparatus to the Bell companies have not increased. On the other hand, as costs have been reduced prices have been lowered. Such price reductions in the above mentioned period have amounted to approximately a million and a half dollars.

On account of the close relations existing between the Western Electric Company and the Bell system, the obligation rests the more heavily upon it to show to any inquiring public service commission that the prices which the telephone companies are paying are as low as those which might be secured from others. Where such investigations have been conducted, the commissions have expressed their approval and satisfaction with the contract relation, and have concluded that the prices were reasonable. There have been a number of such conclusions in different parts of the United States. Three different commissions in Chicago, commissions in the East and on the Pacific Coast have investigated this contract relation, and all of them reached the same conclusion that the contract was an advantage to the telephone company, and that the prices charged were reasonable.

THE WESTERN ELECTRIC COMPANY AS PURCHASING AGENT AND SUPPLY DEPARTMENT TO THE BELL SYSTEM.

The buying and storing of merchandise for the Bell system is such a large problem that it demands and has received



CHICAGO TELEPHONE MEN ERECTING MUNICIPAL CHRISTMAS TREE.

careful study by specialists. Its efficient operation may mean thousands of dollars additional revenue to the telephone companies, as well as making available millions of dollars for investment in plant rather than in idle merchandise. The following functions are within the scope of the standard supply contract:

Buying, receiving, storing, shipping new material.

Receiving, repairing, storing, reissuing used material.

From this it will be seen that in entering into this contract the Western Electric Company took over certain functions of one or more departments of the associate companies, and the relation of this company in carrying out the contract should be, as far as possible, that of a department of the telephone company. The distributing houses, which are entrusted with the execution of this relation, should do everything required of such departments, only more comprehensively than could be done by the telephone companies. This relationship is fundamental and must be the basis of the decision of many questions which arise from time to time in carrying out the contracts.

By foreseeing the telephone companies' requirements, merchandise not manufactured by the Western Electric Company is purchased in large quantities, under the most favorable contracts. Orders are given to suppliers so that they may manufacture in normally slack periods and thus reduce the ultimate cost of goods to the Bell system.

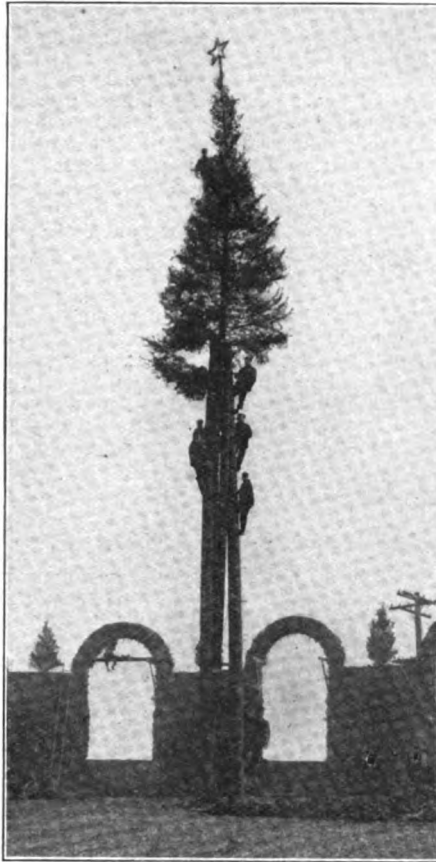
The location of the distributing houses is an important question, and a study was made without reference to the lines separating the various telephone companies, but using as a basis the sources of supply, the points of use of the merchandise, the service that must be given, the facilities for distribution, and the freight rates.

A warehouse is opened in a particular city when that city is of such size and the telephone development of such magnitude that a large amount of merchandise will be needed there or in the immediately adjoining territory.

The guiding principle in distributing merchandise is to carry stocks where they are made and make shipments to the places of ultimate consumption with the minimum of rehandling.

Not only at Hawthorne, where the large general merchandise warehouse is located, but also at the many warehouses throughout the United States, studies are being made on better methods of storing, handling and shipping merchandise, with the idea of improving the service and reducing the cost of such service.

The remuneration to the Western Electric Company for performing these various functions of buying, receiving, storing and shipping merchandise is defined in the contract. In the early contracts the Western Electric Company undertook to do this work at cost, but not to exceed the cost previously borne by the telephone company for such service. As the problem was better understood, lower rates of remuneration were set, until today the standard form of contract provides for rates of remuneration varying from one per cent. on direct shipments of certain classes of material, to six per cent., the maximum, for buying, receiving, storing, shipping merchandise and carrying the investment. Careful supervision and close attention to the work must be given by the Western Electric Company if there is to be any resulting



MUNICIPAL CHRISTMAS TREE BEFORE SIDE BRANCHES WERE ATTACHED.

net profit with these low rates of remuneration.

In addition to the above, the Western Electric Company holds itself in readiness to perform any other functions for the telephone company for which, on account of its organization, it seems well adapted; the conversion and disposition of material taken out of plant is a case in point, this work being done at cost.

EMERGENCY SERVICE.

Central office apparatus suitable for emergency use is held in reserve, but in case of an emergency like the San Francisco or the Baltimore fire, or the floods in the Middle West early in the year, all of the stock and all of the resources of the Western Electric Company itself, and of the many suppliers who are carrying stocks on orders of the Western Electric Company, are available to restore service to the public. Therefore, there has been provided for the Associated Company a continuous protected supply of material designed especially for its requirements, designed, made and inspected with a view to low maintenance and good service, distributed at a minimum of expense to the departments using it.

CONCLUSION.

We have shown the development of the relations between the Western Electric Company and the Bell system. They have been treated from the standpoint of the manufacturer and the manufacturer's responsibility to the telephone company and the public.

We have set forth our conception of the scope of the work as purchasing and supply department. Such a relation to be efficient must be reciprocal. The telephone companies must, in fact, as well as in theory, recognize our houses as integral parts of their organization. The

closest, most intimate and cordial cooperation is essential.

In carrying out our work and in endeavoring to make it more efficient we have analyzed it into its main elements.

To the heads of the operating departments, the manager, stores managers and their staff, at the local houses, the company as a whole offers the assistance of a large and efficient organization, including a staff of trained specialists.

It offers them the valuable comparisons which may be made of the work at our various houses, and brings to each manager the advantages of the experience of all houses by regular inspections.

It offers them the scientific analysis of warehouse and clerical problems, and a reduction of these to standard unit costs, using our general warehouse at Hawthorne as a laboratory to work out new and better methods of handling and caring for merchandise.

At all of our houses our organization is such that the storekeeper for the telephone end of the business is also the storekeeper for the electric supply business, so that whatever advantages accrue, due to the economies which may be made in a highly competitive business, may also be applied to this business of storekeeper for the telephone company.

Finally, there can be no escape from the conclusion that if our conception of the work is broad, if our standards for each department are intelligently set and are reached, efficient service will be rendered to the telephone company, enabling them possibly in a small degree, to give better service to the public, which, in the last analysis, is the fundamental basis of the relation that has been built up and is being perfected.

Installer's Presence of Mind

Prompt action and the ready wit of Grover Kautz, equipment installer, prevented a serious fire at Edgewater exchange, Chicago, shortly before the holidays.

While walking behind the switchboards, Mr. Kautz smelled smoke. He opened a section of A board and found several cords burning. Behind him was a fire-extinguisher and a sand-can. Mr. Kautz had presence of mind to grab the latter and throw sand over the burning cords. He then reached in and jerked out the cords with his bare hands.

Thirty-four cords were burned and the key forms were slightly damaged. In a few hours, however, service was resumed on the damaged sections. Service to patrons was uninterrupted. The cause was found to be a defective fuse.

Had the fire been unnoticed for a few moments longer, or had the liquid fire extinguisher been used, there would have been a much different story. Mr. Kautz received a substantial token of appreciation from the Chicago Telephone Company.

New Use for Advertising

The superintendent of schools at Bloomington, Ind., has been using the series of Bell System advertising cards, entitled "Evolution of Communication," in his history classes to develop the difference in the means of communication at the present time and those of earlier periods. From this he deduces evidence of the progress of civilization. At the request of the superintendent the Bloomington manager secured an extra set of the cards.

Mr. Whitney Resigns

L. N. Whitney has resigned his position as general manager for the Central Union Telephone Company in Indiana, and will become general commercial superintendent of the New England Telephone and Telegraph Company with headquarters in Boston, Mass. Mr. Whitney takes up his new duties February 15th.

Practically all of Mr. Whitney's life has been spent in telephone work. He was educated in the public schools of Newton, Mass., and at the Massachusetts Institute of Technology, where he graduated in 1896. He had already developed a liking and aptitude for telephone work, as during the summer vacations from 1891 to 1895 he had worked as general utility man at the Newton and Highlands ex-



L. N. WHITNEY.

changes. These exchanges are now Newton North and Newton South. His duties consisted in making reports and clearing trouble during the day, and sleeping in the exchange at night, answering such calls as were made. He placed the first granular button installed in Newton, and possibly in New England, as it was in the residence of Jasper N. Keller, then president of the company.

After graduation Mr. Whitney immediately took service with the American Telephone and Telegraph Company in New York, holding successively the positions of inspector, chief inspector, right-of-way agent, assistant chief operator, chief operator, manager and special agent to the district superintendent. In the fall of 1903 he resigned to become division superintendent of the Central Union Telephone Company for Indiana with headquarters at Indianapolis.

Mr. Whitney's experience in the telephone business has covered practically all branches, including plant, traffic, commercial and executive work. He was one of the prominent early advocates of "Universal Service" and had a large share in the development of the policy toward the independent operators and connecting companies, now generally in effect in Indiana, whereby a subscriber to one system may secure connection with all other lines regardless of ownership.

Mr. Whitney's transfer from the Central Group of Bell Telephone Companies will cause genuine regret among his associates in the telephone organization and his legion of friends outside. His

popularity is not due to a pleasing personality alone, but to his capacity for hard and intelligent work, his attitude of consideration, encouragement and support of those who serve under him and to his quick and ready grasp of the needs of the public, combined with the desire and ability to satisfy those needs.

Mr. Whitney has won for himself the esteem and affection of all who have come in contact with him, and their good wishes will follow him to his new field.

In speaking of Mr. Whitney's promotion, the *Indianapolis Star* said, editorially: "The *Star* is glad and proud to join in congratulations to Mr. L. N. Whitney upon his deserved promotion in the telephone field. If Indianapolis is to lose his genial presence and business sagacity, it is a comfort to know that his transfer to Boston will be to his advantage. A brilliant future may safely be predicted for him in his chosen sphere."

Mr. Stickney Appointed

Joseph W. Stickney has been appointed general manager for Indiana, succeeding Mr. Whitney. Mr. Stickney was promoted from the position of commercial superintendent for Indiana. He has been with the Central Union telephone for ten years. Before coming to Indiana he was with the American Telephone and Telegraph Company in New York. His first position with the Central Union was special agent in Indianapolis. Later he was appointed district superintendent at Anderson, Ind. He became commercial superintendent in 1912.

C. M. Nesbitt, formerly district commercial manager for the Northern District, has been appointed commercial superintendent, succeeding Mr. Stickney. Frank Wampler, district commercial manager of the Southern District, will assume the position of district commercial manager of the Northern District in addition to his duties in the Southern District.

Green Gets State Appointment

Thomas E. Green, formerly division toll wire chief for the Central Union Telephone Company at Columbus, Ohio, has been appointed telephone expert for the Public Service Commission of Ohio at a salary of \$2,100 per year. He assumed his duties January 1st under George X. Cannon, head of the department. The appointment was made by the Public Service Commission at the request of Governor Cox.

Mr. Green was awarded a medal by the Ohio legislature for his faithful service at the toll switchboard during the floods of a year ago and his appointment is a further recognition of this service by the governor.

Collections in Advance

A recent decision of the attorney-general of Michigan regarding the right of a public utility corporation to collect rental three months in advance, coupled with the decision of the Railroad Commission to the same effect, would seem to settle the matter as far as Michigan is concerned. In his letter, Deputy Attorney-General Andrew B. Dougherty, said:

"Public utilities companies of the character in question may legally require advance payment of rental so long as the advance period collected for is not unreasonable. It does not seem that three months can be considered unreasonable in all cases. Many public utility corporations habitually charge by the quarter, when they see fit to require that the

rental be paid in advance. I incline to the opinion that such a requirement cannot be deemed to be an unreasonable length of time."

Novel New Year's Test

Thousands of telephone bells tingling merrily and telephone wires jammed with "Happy New Year"—this is a brief description of Chicago's latest way of celebrating the arrival of the New Year.

In place of riotous charivari in downtown streets and cafes, thousands of Chicagoans sent forth their greetings of good will and cheer via telephone. The custom is already established. The telephone takes each year an increasingly important part in the friendly festivities of New Year's Eve.

Observing that the night operators have been getting busier and busier on each succeeding New Year's Eve, the wire chief in the Kedzie exchange in Chicago made a novel test, during the last few minutes of 1913 and the first ten minutes of 1914. With the aid of his ammeter on the test-desk, he took a record of the volume of "Happy New Years" that flooded the wires, in terms of amperes. It was found that the Kedzie subscribers used more electricity to say "Happy New Year" than there is consumed at the "peak" of the busiest hour in the day.

At 11:45, the ammeter registered only fifty-five amperes. In the next ten minutes, the volume increased but twenty-five amperes. At 11:56, the rush began. The needle jumped suddenly to ninety. In another minute it had reached 100; at 11:58 it passed 170, bobbed over the 200 ampere mark at 12:59 and halted for only an instant at 230 as the old year passed out of existence.

During the first ten minutes of the New Year the needle was busy jumping about between 230 and 265 amperes. The latter figure indicates a bigger load than is carried at the average "busy hour" at Kedzie.

When New Years, 1913, made its appearance, the Kedzie ammeter reached 230 amperes at its peak. The increase this year shows that the custom of greeting the New Year via telephone is growing.

John Kilgour Retires

John Kilgour, for many years president of the Cincinnati and Suburban Bell Telephone Company, has retired from active connection with the affairs of the company. He is succeeded by his son, Bayard L. Kilgour.

Obituary

RUSSELL C. WETMORE, former treasurer of the Chicago Telephone Company, died January 20th at his home in Cleveland Heights, Cleveland, Ohio. Death was caused by pneumonia. Mr. Wetmore was sixty-seven years old.

Mr. Wetmore's connection with the telephone in Chicago began when the first telephone service was installed in the city. When the Chicago Telephone Company was incorporated in 1881, Mr. Wetmore became its first treasurer and held the position continuously until 1893, when he went to New York to associate himself with a large barge building concern. Eight years ago he went to Cleveland as secretary and treasurer of the American Shipbuilding Company, and was vice president and treasurer at the time of his death.

Vaccination for the Prevention of Smallpox.

By Dr. Alvah H. Doty, Medical Director, Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company.

Reference is constantly being made in the public press and other current literature to the use of vaccine, anti-toxin, and serum in connection with the prevention and treatment of disease. While the terms are more or less familiar to all, the means by which these agents are obtained, the theory regarding their action and the results that are expected are not clear in the public mind.

Vaccination for the prevention of smallpox is the protective measure of the above group best known and most commonly employed and will therefore be dealt with in this article. Similar preventive measures will subsequently be considered.

Many years before vaccination was thought of, a means of modifying smallpox or rendering it mild, known as "inoculation," was extensively practiced in the East, particularly in Constantinople. This was in active operation about 1700 and a century later was introduced into England. Inoculation consisted in obtaining fluid or lymph from the little vesicles which form during the early stage of the eruption of this disease and introducing it under the skin of those who desired or were forced to receive this form of protection. While smallpox was produced in the one inoculated, it was usually of a very mild type, and protected against the danger of contracting the disease in the regular way with the possibility of causing a great disfigurement or a fatal result. It was found, however, that although inoculation extended protection in the way described, a person thus treated became a medium of infection and transmitted smallpox to others, often in its severest form, and in England its further use was prohibited by an act of Parliament in the early part of the last century.

Inoculation may appear to us an exceedingly drastic method of protection, but it must be remembered that at the period it was employed the public was almost helpless in preventing the ravages of smallpox and were willing to take advantage of almost any measure which provided even partial defense against it. There is probably no subject the statistics of which are more voluminous and more convincing, than those which relate to the destruction which followed in the wake of this disease before vaccination was discovered, for one-tenth to one-half of all deaths which occurred were caused by smallpox, and one-third of the number of babies born died from it within a year, and many of those who recovered were either made blind or otherwise disfigured. In 1734 two-thirds of the entire population of Greenland died from this disease. Therefore, it is not strange that the public mind was constantly disturbed regarding the danger from this source.

During the latter part of the Eighteenth Century, Dr. Edward Jenner, a young English physician who had given this subject careful and exhaustive study, had learned of the tradition existing among employees of dairies that those whose hands became infected while milking cows having a disease known as "Cowpox" which caused an eruption about the udder or teats of the cow, were protected against smallpox. It seems strange that this alleged immunity had not before received earnest attention, but the indifference of the public to traditions and

the reticence on the part of dairy owners to furnish information which might unfavorably affect their business, may partly account for this; however, it did not escape the careful observation of Jenner who, for almost thirty years, investigated this subject and then having demonstrated satisfactorily to himself the protective power of the method afterwards known as "vaccination," he presented to the world a minute and extensive description of his work and his conclusions relative to this protective measure.

Jenner did not try to conceal his discovery, but freely discussed it and invited aid, but for a long time met with nothing but indifference and discouragement. Even Dr. John Hunter, one of the greatest physicians of his time and under whose care Jenner studied as a favorite pupil, was at first but little impressed with the importance of vaccination, although he frequently referred to it in his lectures. Still undaunted, Jenner continued his investigation and on May 14th, 1796, was allowed to "vaccinate" a boy eight years of age with some lymph or fluid taken from a vesicle on the hand of a dairy maid who had contracted the so-called "cowpox." In July of the same year this boy was inoculated with smallpox in the manner already described and, as Jenner predicted, the latter disease did not occur. Jenner afterwards vaccinated others with similar successful results. The account of his discovery soon became known through the world and vaccination spread with great rapidity, being introduced into the United States about 1800.

Jenner believed that the protective power of "vaccination" depended upon the fact that the disease known as "cowpox" was really smallpox in the cow, but the infection in passing through the system of this animal became greatly modified or changed in character, although it afforded protection against smallpox when introduced into the human being. This belief is still maintained, although the practical disappearance of cowpox has made it impossible for the scientists of the present time to continue the investigation begun by Jenner.

It is reasonable to assume that the hands of the milker through cracks or minute openings in the skin became infected by contact with the vesicles on the udder or teats of the cow and that this infection upon entering the system provided protection against smallpox, the original cause of the disease in the cow. Jenner very properly argued that the same result would be secured, but in a much more satisfactory, effective and practical manner if the contents of these vesicles were obtained in a more scientific way, in order that the lymph could be conveniently and at any time introduced under the skin of those who were to receive the benefits of this protection. This was done by opening the vesicles on the udder or teats of the cow and removing their contents on various articles possibly of ivory, glass, or quills, etc., from which it could easily be transferred to a scarified or exposed surface of the skin. This was the origin of vaccination. The lymph or virus, as it is called, is interchangeable between the cow and the human being, i. e., the lymph taken from the vesicles on the cow will successfully vaccinate a

human being, and that removed from the human vesicle can be used for vaccinating the cow, or the virus may be transferred directly from one person to another. In this way the supply of vaccine matter may be perpetuated. A fresh supply has been obtained by inoculating cows with the lymph taken from the smallpox vesicle. At the present day the supply is maintained by vaccinating young calves with the vaccine matter from other calves or from children. At the proper stage the lymph or fluid in the vesicles on the cleanly shaven abdomen of the calf is removed and taken to the laboratory, where it is examined to detect the presence of contaminating organisms and also carefully tested. It is then mixed with glycerine or some other agent, placed in small vials and hermetically sealed and is then ready for use.

When a vaccination is successful or "takes" a very characteristic vesicle appears within a few days after the operation at the point of introduction of the virus; this passes through various stages, becomes dried and the scab afterwards drops off at varying periods, leaving a characteristic depression or scar which to those who are practically familiar with its appearance indicates the success of the vaccination.

Until about twenty years ago vaccination was performed chiefly by what is known as "arm to arm" vaccination. This consisted in taking lymph from the vaccine vesicle on the arm (or other part of the body) of a recently vaccinated healthy child and immediately transferring it to the scarified arm of the children or adults brought together for this purpose.

Another former method of vaccination consisted in collecting the scabs from the arms of children known or believed to be in good healthy condition, mixing it with glycerine or some other fluid and using it for vaccination. While these methods were very successful it was feared that they constituted a possible medium of transmitting disease from one person to another, although the danger from this source is greatly exaggerated; however, to prevent any possible danger in this way these methods of vaccination have been practically abandoned and the method just referred to has been substituted, that is, the virus is secured from calves in the manner already described.

Those who are practically familiar with vaccination recognize that it does not confer immunity or protection in every case; still, this in no way affects the inestimable value of this form of protection for, as a rule, it can be depended upon, if not always to prevent the disease at least to render it mild. In some instances the primary or first vaccination will protect throughout life, in other cases it may not insure immunity for more than two or three years; however, it is believed by those who are competent to judge, that if a person is successfully vaccinated in infancy and again at about ten or twelve years of age, immunity is generally conferred throughout life. This course has been strictly followed in Germany and there is probably no country where fewer cases of smallpox occur; however, it is generally believed that vaccination should be performed every seven or ten years. While there is scientific evidence to sup-

port this view, it should be regarded as an extra precaution, particularly in the presence of an outbreak of smallpox.

There are some who do not approve of vaccination, chiefly among those who have had little or no personal experience with this means of protection, some of whom it is alleged not only deliberately distort statistics relative to this subject to suit their purpose, but present all sorts of theories other than vaccination to account for the decline of smallpox. While it is not the object of this article to discuss this point, it may be said that in the ranks of anti-vaccinationists there are found but few, if any, of the leading practical sanitarians of the day who, from long personal experience, know the value of vaccination as a protection against smallpox.

Vaccination is often objected to on the ground that danger may follow its use. Unpleasant results rarely occur; when they do it is usually the result of carelessness or uncleanness. These conditions also present themselves in instances where simple wounds are not properly protected.

For various reasons, vaccination, although a simple operation, should be performed by physicians and not by laymen, except in instances where emergencies exist; besides, those vaccinated should be kept under professional observation until the arm heals and the scab falls off. This is not only for the welfare of the person vaccinated, but also to determine if the vaccination proves successful.

In order to secure successful vaccination it is exceedingly important that great care be taken in the production of the lymph or virus. Vaccine matter is now prepared largely by state and municipal laboratories and free vaccination is generally performed. This insures without expense the best virus and most effective means of performing the operation. Health authorities throughout the country should be equipped to offer free vaccination in order that it may be properly and fully carried out, and it should be without expense to the individual, for it is a general protective measure.

A very simple, practical and sanitary method of vaccination which is at present employed consists in the scarification of the skin with the point of a needle in order that too much blood may not be drawn, the lymph being transferred from the vial to the skin by wooden toothpicks, both the needle and picks having been purchased in unopened packages and therefore new and clean. *These are to be used but once and then thrown away.*

The character or appearance of a successful vaccination depends upon whether or not it is a *primary or a first vaccination, or a secondary or revaccination*. A primary vaccination may easily be detected by a white pearly ring which surrounds the vesicle in its early stage; this does not appear in the revaccination, the latter having no special characteristics, which as a rule a layman would recognize. It is to properly determine the success of this operation that the observation of a physician is necessary for, while a revaccination may be quite sore and painful and associated with considerable inflammation, it does not necessarily follow that it is successful or confers immunity; this is decided largely by the appearance of the scar. Many persons vaccinate themselves or members of their family, or after having been vaccinated by a physician do not see him again in order that the result of the operation may be determined, and therefore cannot be sure that protection is conferred, and may be susceptible to smallpox. Therefore, it is

necessary that the result of every vaccination should be examined by a physician.

The outside of the left arm is usually chosen for vaccination for, as a rule, it is used less than the right one, and therefore subjected to less movement. For appearance sake some are vaccinated on the leg, although this is less desirable. The local symptoms are apt to be more severe and locomotion is not infrequently interfered with.

Christmas Entertainment at Terre Haute

A regular stage, real footlights and a curtain that didn't "balk," played their respective important parts in the Annual Christmas Entertainment given by the Terre Haute, Ind., traffic, plant and commercial employes on the evening of December 23d. The show was held in the operators' large rest room in the Exchange Building, which was introduced to the audience as the new "Central Union Theater."

The "House" was packed and standing

part of his sturdy willow against the top of his old-fashioned desk, at times, caused many to sit up and take notice of the rapidly occurring events. As the roll was called, Susie Gumdrops, Liza Snodgrass, Matilda Spiffel, Anglina Flaharty and Cyrus Duesendofer were among the scholars that answered present.

The following employes participated in this part of the entertainment:

George Brown, Kathryn Kimsey, Mary Short, Flora Seeberger, Mary Seeberger, Georgia Adamson, Irma Gordon, Marie Owens, Agnes Smythe, Anna Fischer, Laura King, Ruth Striley.

Miss Fischer, who assumed the personality of Cyrus Duesendofer, dressed in an ill-fitted tight coat, short knickerbockers, white stockings, a small hat, and with "collar length," red, stringy hair, was one of the "stars" of the whole entertainment. She was the only "boy" pupil in the class. Her apparent ease and lack of self-consciousness enabled her to portray her part with a great deal of realism.

This part of the program was followed



CHRISTMAS PERFORMERS AT TERRE HAUTE, IND.

Left to Right, standing—W. A. Shaw, Ivan F. Halstead, Chase Mendenhall, Alvin Vanell, John F. Smith, Charles Reynolds, Frank Rolen, Herman A. Irmiger.

Left to Right, sitting—Frank Porter, Olie Stewart, Charles E. Chambers, Alice Shaw, Raymond Smith, George Cook, Ira H. Humphreys.

room was the only available space for a full half hour before the performance began. This time, however, afforded an opportunity to Manager Kissling to call upon the attending superintendents. Talks were made by J. Lloyd Wayne, III., traffic superintendent, and W. R. Hirst, plant superintendent, both of whom called attention to some of the trying and unusual events of the past year, incident to the cyclone, flood, etc., and thanked the employes for the hearty support given the company during such trying conditions.

Amid deafening applause and with music swelling to the tune of "Hail! Hail! The Gang's All Here" the curtain rose, revealing to the audience memories of childhood days, "The Hoosier Skule."

The Hoosier "skule" teacher, impersonated by George Brown of the commercial department, was a very clever character, and his traditional method of "rule with the rod" was the source of much laughter. In fact, the sudden im-

monologue, entitled "Kentucky Watermelon."

Pearl Adams' recitation of the revised "Twinkle, Twinkle, Little Star," and a solo, "When Twilight Comes to Kiss the Rose Good Night," sung by Georgia Anderson brought much applause.

A very amusing part of the entertainment was Mattie Harms and Kathryn Landers in a Dutch love act, entitled "Heinie and Katrina." They were both dressed in typical Dutch costume.

The closing act was a "Minstrellette" given by the plant and commercial male employes. With C. C. Chambers as interlocutor, the cast was made up as follows:

End men: Ira Humphreys, Frank Porter.

Circle: Olie Stewart, George Cook, C. H. Mendenhall, W. R. Fox, John Smith, E. K. Atkinson, Ray Smith, Alvin Vanell, Charles Reynolds, Frank Rolen.

The opening chorus by the minstrel

men was a parody on Tammany, entitled "Kissling," which ran:

Kiss-l-ing, Kiss-l-ing,
We have come to say to you
We can't stay away from you.
Kiss-l-ing, Kiss-l-ing,
We show the best
In all the tests,
Says Kiss-l-ing.

Other songs were "Love Me While We Lovin' Is Good"; "Sailing Down Chesapeake Bay," and "Good-bye Summer, So Long Fall." The specialty of this act was William Shaw and little daughter, Alice, in the song, "My Pickaninny Babe." The little girl took the part of a black face and the success with which she carried through her part caused a great deal of applause and comment.

Music for the entire show was furnished by the Misses Marie Creasey and Edna Peyton. Between the acts the audience was entertained by radioticon pictures shown by Manager F. H. Kissling. Photographs of the various Bell Telephone officials, together with pictures showing the progress of telephony, met with hearty approval. At the close of the performance the floor was cleared for dancing. An appetizing lunch was served on the second floor.

The heads of the various committees in charge were: William Shaw, chairman general committee and manager of the entertainment; Grace Smith, chairman entertainment committee; Laura Le Forge, chairman refreshments; Herman Irminger, chairman of the minstrels.

Handling Complaints at Milwaukee

By Myron R. Crocker, Complaint Clerk.

The policy of the Complaint Department of the Wisconsin Telephone Company is to shape its attitude towards the public so that the subscribers will feel that by simply calling attention to a real or imaginary wrong, it will receive prompt attention. It is felt that a subscriber making a complaint is honest in his belief that some wrong exists, and no matter how trivial that wrong may be the complaint is thoroughly investigated.

Complaints are received through various channels, some reaching us in the form of letters written directly to the company by subscribers; some are entered by subscribers who call in person at the office of the company; others are received over the telephone either by this department or some other department of the company; while still others reach us through our service testers, commercial agents and collectors.

Complaints are recorded and handled in the following manner:

Each complaint is recorded in the order in which it is received, a complaint number being given it and card record being made. It is then ready to be reported to the chief operator and wire chief.

The chief operator begins immediately by making a very thorough investigation of the service, seeing that the number is correctly listed on all records and in the directory, and the boards properly marked. She also makes several calling tests from different sections of the boards, and works with the subscriber until he or she is satisfied that the service is up to our usual high standard. When the subscriber has reported the service as satisfactory, the chief operator makes her report to the complaint department on a blank form especially printed for that purpose.

The wire chief, upon receipt of a complaint, has one of his repair men look



CAST IN COSTUME AT CHRISTMAS ENTERTAINMENT AT TERRE HAUTE, IND.

into the condition of the subscriber's line, and also instrument. At the same time, the switchboard repairman is making a thorough inspection of the office equipment, testing the relays and examining the connections. When these inspections are completed the wire chief makes his report to the complaint department on a blank form especially printed for that purpose.

When the chief operator's and wire chief's reports are received by the complaint department they are attached to the office memorandum and all other correspondence bearing on that particular complaint, and are then gone over by the head of the department to assure us that everything possible has been done to satisfy the subscriber.

As soon as it is found that satisfactory results have been obtained, and the subscriber has reported to the chief operator that his service is up to the standard, then, before filing the papers, the reports are verified by calling the subscriber by telephone, writing a letter asking him to verify the report, or calling upon him in person and explaining to him how troubles, such as he experienced, occur, and finally leaving him not only a satisfied subscriber, but a good friend of the telephone company.

Jokes in British System

One of the London dailies is discovering some farcical sides of the telephone system, which is owned by the government. Seeking the "smallest exchange," it discovers that there are only three subscribers in Castlebellingham. Dechmont is still smaller, with two. Each has an operator, whose hands, the paper observes, "must be extremely busy."

The entry for the three-subscriber exchange in the directory reads: "Castlebellingham area, including Castlebellingham. Public Call Office—Castlebellingham."

A brave effort to give the entry further scenic importance is made by a lengthy direction as to what one must do in the event of faults and service difficulties, but the melancholy fact remains that a brewery, a firm of corn merchants and Mrs. Woolsey-Butler share Castlebellingham exchange among them.

A call is put in for Castlebellingham. "Trunks" operator first wonders if "Bellingham" is wanted. The person calling insists politely on Castlebellingham, explaining that it is in Ireland near Dundalk. Traveling via Carlisle, Stranraer,

Larne and Belfast, the call arrives at Castlebellingham in just half an hour. It creates a sensation, being the first London call within living memory.

The telephone operator has her trials. She lives in hourly dread of giving a wrong connection, fear haunts her lest when the brewery ring up and ask for the corn merchants she should put them on to Mrs. Woolsey-Butler's line or vice versa.

But another member of the telephone staff discovered the smaller exchange at Dechmont area, in Linlithgowshire. It has only two subscribers, to wit, Arthur James Meldrum and the Village Asylum.

Here the life of the operator must be so free from anxiety as to be almost monotonous. A ring comes from Mr. Meldrum. She knows without hesitation that he wants the asylum. Another ring, this time from the asylum. Of course they want Mr. Meldrum.

Telephone Saves Deaf Mute

Ralph Corwin of Ogemaw County, Mich., a deaf mute who never has nor ever will use a telephone, nevertheless owes his life to a telephone call.

Young Corwin was engaged in the forests of Ogemaw County cutting wood with a portable sawmill. While he and his companions were busily working Corwin in some manner slipped and fell prostrate on the fast revolving saw of the wood-cutting machine, which almost cut through one of his legs in three different places. His fellow workmen hurried him to camp where a Bell telephone was located and, while some of them applied first aid remedies, one telephoned the nearest surgeon, located sixteen miles away, and asked for assistance. Dr. L. R. Ingleright, of Rose City, responded and thirty-eight minutes from the time the injured boy reached the lumber camp the doctor arrived and took charge of the case.

The writer has it from the lips of the doctor himself that he was none too soon, as the young man was unconscious from the loss of blood and ten minutes' delay would have meant death.

The doctor very modestly says that he should not receive any praise for the achievement, but gives the telephone full credit. Corwin recovered and his greatest regret is that he cannot in this world make use of the wonderful instrument which made it possible for him to live.

BELL·TELEPHONE·NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
 A. BUXT, *Vice President*
 W. I. MIZNER, *Secretary*
 C. E. MOSLEY, *Treasurer*
 L. G. RICHARDSON, *General Counsel*
 B. S. GARVEY, *General Auditor*
 J. C. WRAY, *Chief Engineer*
 CLIFFORD ARBICK, *Manager Publicity Department*

H. F. HILL, *General Manager*,
 Chicago, Ill.
 E. A. REED, *General Manager*,
 Columbus, Ohio
 H. O. SEYMOUR, *General Manager*,
 Milwaukee, Wis.
 J. W. STICKNEY, *General Manager*,
 Indianapolis, Ind.
 A. VON SCHLEGEL, *General Manager*,
 Detroit, Mich.
 H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

FEBRUARY, 1914.

Our Christmas Pictures

In many of our exchanges during the recent holiday season was exemplified what has come to be known as "The Spirit of Christmas." In our last issue brief mention was made of the usual Christmas gifts to the poor prepared and distributed by Chicago telephone girls. In this issue we present photographs and items describing Christmas charity in several other exchanges. On account of the necessity of preparing material for a monthly publication well in advance of the date of issue it was not possible to publish these in the January number.

A Great Teacher taught that it is more blessed to give than to receive. Many of our girls received Christmas remembrances from gratified subscribers. Their happiness was great, but it is to be doubted if even these experienced the pleasure felt by the girls who so unselfishly gave their time and efforts to the task of relieving the poor and making Christmas a day of brightness in homes which poverty makes almost perpetually dark.

The telephone girl is, by virtue of the position she holds, to some extent a humanitarian. She spends her working hours in conferring practical benefits upon her fellow creatures. When she takes up at Christmas a task of making benefits specific she is but extending the idea she carries into her daily work.

Now We Know Why

When heretofore we have expressed our natural wonderment at the alacrity and general cheerfulness with which the telephone is answered by all classes of people we have been told that it was a "psychological phenomenon." Now the magazine *Electricity* comes forward and tells exactly how it is. The explanation, it says, is a very simple one. There is an element of mystery about a telephone call. The called party never knows, until he actually responds, whether or not the caller is a person of importance, or has something of vital import to communicate. It is just a matter of luck, and your average business man, no matter how deep he may be in the conduct of his affairs with others actually present, will almost invariably break off the most important personal conversation to answer a telephone call.

The Town Woke Up

When President Wilson surprised Gulfport, Miss., by dropping into a little church there one Sunday last month, there were a scant score and a half of worshipers present. But there are many telephones in the neighborhood, and before the second hymn had been reached every seat was occupied and more people were on the way.

Goodbye, Whit, take keer o' yerself.

Central Union Receivership.

On January 31st JUDGE W. E. DEVER of the Superior Court appointed as receivers for the Central Union Telephone Company DAVID R. FORGAN, President of the National City Bank of Chicago; EDGAR S. BLOOM, Vice President of the Southwestern Group of Bell Telephone Companies, and FRANK F. FOWLE, consulting electrical engineer, of New York. MR. JOHN J. HERRICK of the Chicago bar was agreed upon as counsel for the receivers.

THE NEWS feels that a statement of the causes leading up to the action of the court is proper at this time in order that the employes of the Central Union Telephone Company may have a clear understanding of the situation. The Company is not insolvent; the placing of its property in the hands of receivers is designed to keep it intact and in unimpaired usefulness during the course of the suit brought by the minority stockholders for an accounting, to determine whether the financial relations existing between the Central Union Telephone Company and the American Telephone and Telegraph Company have been equitable and fair to all concerned.

THE NEWS states on the highest authority that no uneasiness need be felt on account of these legal proceedings, as indicated by the general letter of February 2nd from the receivers to the employes of the Company, quoted in full below:

Chicago, Ill., Feb. 2, 1914.

To the Employes of the CENTRAL UNION TELEPHONE COMPANY:

The undersigned, having been appointed Receivers of the Central Union Telephone Company by the Superior Court of Cook County, Illinois, the Superior Court of Marion County, Indiana, and the Court of Common Pleas, Franklin County, Ohio, desire to say to the employes that the business will proceed without interruption as it has been heretofore run and operated, but from this date it will be under our direction and authority.

You will understand that you are to hold possession for the undersigned of any property of the Central Union Telephone Company now in your control or possession.

It is hoped that the employes will continue their loyalty heretofore shown, and that their relations to the business will continue without interruption.

Yours very truly,

DAVID R. FORGAN,
 EDGAR S. BLOOM,
 FRANK F. FOWLE,

Receivers for Illinois and Ohio.

DAVID R. FORGAN,
 FRANK F. FOWLE,
 EDGAR S. BLOOM,
 JOHN A. MORIARTY,

Receivers for Indiana.

District and Division Collection Rating

NOVEMBER, 1913.

	Total charges.	Total credits.	Total unpaid Dec. 1.	Pct. credits to total chgs.	Pct. cash to final accts.	Sta-tions.
1. Wisconsin Co., Appleton District.....	\$ 66,598	\$ 64,122	\$ 2,476	96.2	36.2	27,071
2. C. U. Co. (Indiana), Southern District.....	42,109	39,337	2,772	93.4	22.2	19,143
3. C. U. Co., Columbus District.....	54,219	50,471	3,748	93.1	10.7	22,406
4. Wisconsin Co., Madison District.....	39,852	35,036	4,816	87.9	23.2	16,536
5. C. U. Co. (Indiana), Northern District.....	61,434	53,724	7,710	87.4	22.4	26,193
6. Chicago Co., Gary District.....	11,320	9,897	1,423	87.4	19.5	2,272
7. Wisconsin Co., Eau Claire District.....	33,818	29,384	4,434	86.8	13.4	13,712
8. C. U. Co., Champaign District.....	6,381	5,533	848	86.7	33.9	2,410
9. Michigan Co., Detroit District.....	353,837	306,046	47,792	86.4	29.7	82,925
10. *Wisconsin Co., Milwaukee District.....	180,449	155,180	25,269	85.9	41.2	63,350
11. C. U. Co., Chillicothe District.....	35,976	30,906	5,070	85.9	27.5	19,048
12. C. U. Co., Dayton District.....	63,346	54,055	9,291	85.3	18.4	23,586
13. Chicago Co., Blue Island District.....	11,011	9,389	1,622	85.2	40.4	3,495
14. Chicago Co., Aurora District.....	20,330	17,182	3,148	84.5	45.8	6,878
15. C. U. Co., Centralia District.....	12,206	10,292	1,914	84.3	18.1	5,160
16. Wisconsin Co., Janesville District.....	11,565	9,683	1,882	83.7	33.3	4,616
17. Chicago Co., Chicago Heights District.....	8,635	7,210	1,425	83.4	31.2	2,625
18. Chicago Co., Elgin District.....	17,481	14,530	2,951	83.0	40.6	6,154
19. Chicago Co., Hammond District.....	21,793	18,061	3,732	82.8	26.6	6,985
20. C. U. Co., Akron District.....	68,693	56,644	12,049	82.8	26.9	24,122
21. Chicago Co., Chicago Division.....	1,502,507	1,243,401	259,106	82.7	33.2	349,530
22. Chicago Co., La Grange District.....	17,278	14,207	3,071	82.2	42.7	5,170
23. C. U. Co., Jacksonville District.....	7,592	6,188	1,404	81.5	30.1	4,297
24. Chicago Co., Wheaton District.....	12,991	10,524	2,467	81.0	41.6	3,805
25. Chicago Co., Oak Park District.....	39,310	31,652	7,658	80.6	40.6	10,158
26. Chicago Co., Evanston District.....	46,656	37,102	9,554	79.5	37.7	10,115
27. Chicago Co., Woodstock District.....	10,788	8,637	2,251	79.1	35.8	3,493
28. Chicago Co., Joliet District.....	31,134	24,467	6,667	78.6	25.9	9,878
29. C. U. Co., Toledo District.....	60,790	47,342	13,448	78.3	7.4	24,085
30. Chicago Co., Waukegan District.....	31,571	24,544	7,027	77.7	37.5	7,829
31. C. U. Co., La Salle District.....	7,186	5,679	1,607	77.6	30.5	2,595
32. C. U. Co. (Indiana), Central District.....	102,288	77,787	24,501	76.0	18.5	32,201
33. C. U. Co., Paris District.....	3,029	2,266	763	74.8	....	1,675
34. C. U. Co., Galesburg District.....	7,888	5,868	2,020	74.4	3.6	3,600
35. *Michigan Co., Saginaw District.....	71,023	51,530	19,493	72.5	2.3	21,331
36. C. U. Co., Kankakee District.....	14,266	10,335	3,931	72.4	4	6,234
37. C. U. Co., Alton District.....	7,583	5,363	2,220	70.7	17.8	3,248
38. C. U. Co., Rock Island District.....	29,793	20,765	9,028	69.7	2.2	10,717
39. C. U. Co., Springfield District.....	37,427	25,463	11,964	68	12.7	10,038
40. C. U. Co., Decatur District.....	17,692	11,946	5,746	67.5	5.4	5,614
41. C. U. Co., Quincy District.....	17,700	11,895	5,805	67.2	....	5,467
42. C. U. Co., Peoria District.....	56,931	37,915	19,066	66.6	11.2	16,160
43. *Michigan Co., Eastern District.....	107,743	69,544	38,199	64.5	23.1	30,877
44. *Cleveland Co., Cleveland Division.....	209,587	131,124	78,463	63.1	28.6	58,160
45. *Michigan Co., Grand Rapids District.....	143,547	88,944	54,603	62	13.7	42,203
46. C. U. Co., Rockford District.....	25,148	15,564	9,584	61.9	8.8	8,014
47. *Michigan Co., Marquette District.....	59,943	33,884	26,059	56.5	33.6	15,383
	\$3,800,504	\$3,030,417	\$770,087	79.7	....	1,079,314

*Quarterly rental billing.

	Division Summary.				
Wisconsin Co.	382,282	293,405	38,877	88.3	38.6
C. U. Co. (Ohio)	283,024	239,418	43,606	84.6	17.9
C. U. Co. (Indiana)	205,831	170,848	34,983	83.0	19.8
Chicago Co. (City)	1,502,507	1,243,401	259,106	82.7	33.2
Chicago Co. (Suburban)	280,308	227,302	53,006	81.1	35.5
Michigan Co.	736,093	549,947	186,146	74.7	27.1
C. U. Co. (Illinois)	250,872	174,972	75,900	69.7	11.4
Cleveland Co.	209,587	131,124	78,463	63.1	28.6
	\$3,800,504	\$3,030,417	\$770,087	79.7	....

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent. of the total charges for collection during November, 1913, are given below:

City and State.	Per cent. Collected.	Sta-tions.
Columbus, Wis.	100	858
Princeton, Wis.	100	136
Red Granite, Wis.	100	101
Burnett Jct., Wis.	100	78
Linden, Ind.	100	70
Fairland, Ind.	100	62
Hart, Mich.	100	54
Climax, Mich.	100	42
Shelby, Mich.	100	33
Mt. Orab, Ohio	100	13
Plattfield, Ind.	100	5
French Lick, Ind.	99.5	438
Logansport, Ind.	99.2	61
Brooklyn, Ind.	99.1	82
Hampshire, Ill.	99.1	6
Vincennes, Ind.	99	2551
Jefferson, Wis.	98.9	399
Manilla, Ind.	98.9	63
Oconto, Wis.	98.7	499
Ft. Atkinson, Wis.	98.6	788
Standish, Mich.	98.6	146
Winneconne, Wis.	98.6	137
Dyer, Ind.	98.6	17
Crawfordsville, Ind.	98.5	2881
Richmond, Ind.	98.5	30
Auburn, Ind.	98.2	1074
Greenville, Mich.	98.2	37
Manitowoc, Wis.	98	1500
Waupaca, Wis.	97.9	494
Hartford, Wis.	97.7	674
Hortonville, Wis.	97.7	360
Juneau, Wis.	97.7	177
Appleton, Wis.	97.6	2672
Watertown, Wis.	97.6	925
North Freedom, Wis.	97.5	145
Oshkosh, Wis.	97.4	4381

Anderson, Ind.	97.4	3192
Sturgeon Bay, Wis.	97.4	768
Berlin, Wis.	97.4	418
Horicon, Wis.	97.3	362
Stoughton, Wis.	97.1	1065
Algoma, Wis.	97.1	253
Wrightstown, Wis.	97.1	108
Spencer, Ind.	96.8	255
Little Chute, Wis.	96.8	48
Neeah-Menasha, Wis.	96.7	1518
Port Washington, Wis.	96.7	407
Boggsstown, Ind.	96.7	89
Frankfort, Ind.	96.5	2126
Kewaunee, Wis.	96.5	284
New London, Wis.	96.4	546
Ashville, Ohio	96.4	24
Newark, Wis.	96.3	206
DePere, Wis.	96.2	1037
Kendallville, Ind.	96.2	766
Galva, Ill.	96.2	7
Green Bay, Wis.	96.1	4993
Baraboo, Wis.	96.1	775
Omro, Wis.	96.1	549
Alexandria, Ind.	96.1	393
Piqua, Ohio	96.1	352
Logan, Ohio	96.1	197
Burlington, Wis.	96	731
Osceola, Ind.	96	155
Corliss, Wis.	95.9	76
Mayville, Wis.	95.8	510
Bourneville, Ohio	95.8	54
Kaukauna, Wis.	95.5	449
Hudson, Wis.	95.4	563
Harrisonville, Ohio	95.3	51
Edwardsville, Ill.	95.2	1235
Kewanee, Ill.	95.1	410
West Bend, Wis.	95	446

Final Account Collection Rating

Exchanges in the Central Group where accounts have been centralized six or more months, that collected 50 per cent. or better

of the total subscribers' final bills, as shown on the November, 1913, collection report.

	Pct. col-lected.	No. of stations.
Brooklyn, Ind.	100	82
Smith Valley, Ind.	100	58
Naperville, Ill.	91.5	504
Hartland, Wis.	88.9	167
St. John, Ind.	85.7	110
Plattville, Ill.	84.6	163
Hampshire, Ill.	83.3	6
Lake Geneva, Ill.	80.1	1092
Lisbon, Ill.	80	127
Manchester, Mich.	75	368
Greenwood, Ind.	75	340
St. Martins, Wis.	75	200
Chelsea, Mich.	74.6	468
Oconomowoc, Wis.	70.3	644
Genoa Jct., Wis.	70	230
Burlington, Mich.	66.6	46
Dyer, Ind.	66.6	17
Peotone, Ill.	66	62
Roseville, Mich.	64.3	93
Corliss, Wis.	63.3	76
Oswego, Ill.	62.8	309
Winnetka, Ill.	62	1191
Geneva, Ill.	60.2	491
New Haven, Mich.	59.1	60
Culver, Ind.	58.1	389
Lake Forest, Ill.	57.9	1182
Algonquin, Ill.	57.4	100
Lombard, Ill.	57.3	246
Cedarburg, Wis.	57.1	196
Highland Park, Ill.	55.2	1545
Bartlett, Ill.	55.2	238
Union, Ill.	54.8	151
Homewood, Ill.	54.5	213
Arlington Hts., Ill.	54.2	492
Shelbyville, Ind.	54.1	1977
Vincennes, Ind.	53.7	2551
New Lenox, Ill.	53.4	164
West Bend, Wis.	52.1	446
Port Washington, Wis.	52	407
Morgan Park, Ill.	51.5	709
Glen Ellyn, Ill.	51	410
Lowell, Ill.	50.1	778
Oxford, Mich.	50	272
Romeo, Mich.	50	227
Boggsstown, Ind.	50	89

Appreciates Good Service

Work of the telephone operator is trying at its best. There is so much to be done in a given time, so many people to please and such a lot of discourtesy shown them at times by patrons that the hello girl is often at her wit's end. It's the grouch that makes her life a burden, and the grouch usually is the man or woman who is either ignorant or uncivil.

There isn't a more faithful employee of any establishment than the telephone girl, and once in a great while someone rises and gives her her just due. For instance, this:

Carbondale, Ill., Dec. 16, 1913.
Manager Central Union Telephone Company,
Highland, Ill.:

Dear Sir—The writer had occasion to make telephone call from a country phone near Highland December 14th to Carbondale. The lady operator on duty was very courteous and secured immediate connection, which service was very highly appreciated. Such attention on part of your operator is very commendable. I want to compliment her and your company for having her services. This call was due to a death in the family and the promptness was doubly appreciated. Again thanking you, and with best wishes for the continued success of your company, I am, very truly yours,

W. C. MARMADUKE.
—Highland Journal.

"Voila" on the Telephone

Pending the introduction of other telephone reforms, it is proposed in Paris to substitute for "Allo" the term "Voila."

The history of "Allo" is quite interesting. It is usually supposed to be a French version of "Hello," but like many other popular etymologies that is incorrect. When the first Bell telephone was introduced into France in 1880 the postal authorities made a number of experiments regarding the most suitable phrase to use in making calls. At first the recognized formula was "Allons," a colloquialism which when properly accentuated is equivalent to "Hurry up, there." But it was found to be far from perfect, and so it was shortened into "Allo," a term which spread to Belgium and other European countries.—New York Sun.

Small Economies as Profit Makers.

By Alonzo Burt, Vice President of the Central Group of Bell Telephone Companies—Paper Read at Monday Lunch Club, Chicago, January 26, 1914.

The yearly operating expenses of the railroad companies of the country have almost reached the huge sum of two billion dollars, and the expenses are treading so closely upon the heels of the gross revenue that the railroads generally have taken up various methods of developing coöperative economies among their employees.

Some of the railroads have sent out printed suggestions showing how employees can economize without impairing the service of the roads. These suggestions have developed into slogans, such as "Save a nickel a day," "Save the broom," "Save a shovel of coal a day," etc.

The literature distributed by the railroads compares the cost of a number of items, such as lead pencils, brooms, track bolts, lanterns, etc., with the cost of hauling one ton of freight a stated number of miles for each of the items enumerated, thus showing employees what effort the road must make to procure the items named.

The railroads of the country employ nearly two millions of people, and if each person would save a nickel a day, the amount would reach nearly \$100,000 a day. This effort to save the small losses is a broad application of the old adage, "Take care of the pence for the pounds will take care of themselves," and when systematically applied to a large number of persons, the result in dollars is surprisingly great.

All of the efforts of the railroads to foster economic coöperation deal with the small items that are in everyday use at many points. The statement has been made that by reason of this campaign the Pennsylvania Railroad has been able to reduce its requisitions for miscellaneous supplies ten per cent.

Other kinds of public service companies, as well as the railroads, are experiencing a decrease in gross revenue per unit of service and an increase in gross operating expenses, which in many instances leaves a very narrow margin of profit and brings forcibly to the attention of managers the necessity for coöperation between officers and employees in effecting economies wherever possible.

The definite unit of operation dealt with by the railroads in this campaign is the ton mile. In telephone operation the nearest parallel to the ton-mile unit is the originating call. With a large part of the service in this group of companies on the unlimited basis, and with the use of the service and rates varying in exchanges of different sizes, it is impracticable to find a definite unit value per originating local call, which is probably around two cents, and for the purpose of this paper it is assumed that each completed local exchange call brings the company handling it two cents in gross revenue. Every employee can realize the large investment that is utilized, and the amount of labor that must be employed in handling 100 telephone calls.

Throughout the Bell System of telephone companies the accounting is practically uniform, and the companies have effective methods and routines for the prevention of waste or loss in the use of handling of tools, facilities or supplies,

and if the instructions are followed, there will be very little waste or loss in this direction.

What is the situation in this group of companies where 35,000 persons are employed, and where, if each person would save a nickel a day, the gain to the companies would be \$1,750 per day? Is there any necessity in this group for a campaign similar to that which the railroads are carrying on among their forces?

Where there is personal ownership in a business, there is ambition to make the enterprise successful. When we undertake to work for others, we should, in justice to our employers, establish for ourselves the fundamental principle of working for the success of the business, exactly as though personal ownership existed. This is what we should do, but what is our real everyday attitude and practice? Do we take the same care of property of the company entrusted to us and the same interest in the success of the business as we do of our own belongings and affairs? How many nickels are lost to the company each day through our failure to do as good work for our company as we would if working for ourselves?

Are we as careful of the electric light bill at the office as we are at home, where we are religiously mindful to turn off the light when we leave a room for even a few minutes? Electric light is relatively cheap, but even the improved tungsten lamp will soon consume a nickel's worth of current and a lamp left burning unnecessarily through the lunch-hour eats up the revenue from several calls.

In every part of the organization at General Headquarters and elsewhere, there is opportunity to conserve the profits by preventing waste in small items. A great many printed forms are spoiled by leaving them exposed where they become soiled. Others are spoiled by needless errors in filling out. Ordering larger quantities of forms than necessary is another source of loss. Lead pencils are cheap, but there is unnecessary waste in this item, and it takes the revenue from about seventy-five calls to buy a gross of pencils. There is also unnecessary waste of penholders and pens, blotting pads, writing paper and envelopes. Recently a clerk was observed trying to address an envelope. He spoiled two, and succeeded in getting the address on the third. Where was his mind, and how many calls per day are lost by envelopes spoiled in addressing?

A great deal of inter-company and inter-department correspondence is necessary and proper, but is there not unnecessary use of typewriters and stationery asking other departments for information that could, with very little effort, be found in the department making the inquiry? Including the time of the person dictating, the time of the stenographer taking the dictation and writing the communication, the cost of the stationery and cost of mailing or sending to another department, will often bring the cost of writing a letter to several nickels. Therefore, to saving writing a letter a day will save more than a nickel a day.

Failure to differentiate between matters that should have immediate atten-

tion and matters purely routine, often causes loss. Correspondence should be carefully read as soon as possible after receipt, and that requiring early attention should be pushed ahead and that of a routine character given second place. Why wait to be traced before answering a communication? It ordinarily costs as much to send a tracer as it does the original communication, and the delays may have caused the department originating the inquiry the price of several calls through having to keep track of the delay in making reply. If it is evident when a communication is received, that the information asked for cannot be supplied within a reasonable time, advise the inquirer, so he can be governed accordingly and will not need to trace.

Correct assembling of papers is essential to the success of any filing system. It is easy to "file" papers so they are out of sight, but the value and object of a filing system is to find papers promptly when they are wanted. Hunting for papers improperly filed soon consumes a nickel's worth of time, and loss of time means the loss of money. Before papers are filed, those associated under ordinary paper clips or pins should be permanently fastened together with a split brass fastener of suitable size, and all pins and clips should be removed and preserved for further active use.

The janitors at the General Office recently accumulated from waste baskets enough paper clips, which, if linked together, would make a chain long enough to reach the length of a city block. If the pins recovered from these same waste baskets were bent and put on the chairs of the clerical force, as is sometimes done by the bad boy at school, all of the General Office work would be done standing for the next several months, and each chair could have a fresh pin every day, including Sundays and holidays. Thrift is simply watching the small things.

Under the postal laws there are several classifications of mail matter, each having a different rate of postage. Mail matter should be classified as far as possible, so as to obtain the most advantageous rate of postage, and all of each class to the same office or person should be forwarded under one cover instead of using a number of envelopes or enclosures. Two cents saved on postage is worth as much as a completed exchange call.

Time can be saved, and the business expedited, if work is systematized. If heads of departments will arrange their dictation at regular times, and begin as early after the opening of business as practicable, stenographers can begin writing early, and can arrange their work better than if frequently called for dictation of a communication or two at one time. A half hour wasted means the loss of revenue from a number of calls.

Electric lights and soldering furnaces that burn in terminal rooms when not required eat up calls rapidly. Jumper wire costs around one dollar per hundred feet, yet a great many feet of this wire unnecessarily go to the junk box every day. Failure to keep the brushes on generating machines in proper condition soon dissipates both armatures and brushes, which cost a good many calls. Some of the heat coils we use are worth the revenue from three calls each, yet heat coils and carbons which cost about one call each are sometimes handled as though they cost no more than pebbles on the shore of Lake Michigan. Care of a storage battery is particular work, and the elements are easily damaged if im-

properly treated. New elements mean the price of a great many calls. Cutting in new lines, testing new stations, or testing for reported trouble, and the many other duties of wire chiefs, testers, and trouble men, are generally well done, but a little letting down at any point can easily exceed the revenue of as many calls as a good operator can complete in a whole day. Performance is the test of our worth.

The inside wire used for wiring premises for telephone installations is comparatively cheap, but the quantity of this wire purchased by our group each year amounts to more than \$100,000. The question naturally arises as to what becomes of this immense quantity of subscribers' station wire. A great many telephone stations are moved, and it is generally easier for the installer, and often more economical, particularly where the wire is concealed, to wire the new location with new wire than it is to recover the wire at the original location, and re-use it at the new location. But there are a great many instances where long runs of inside wire are exposed, which it would be profitable for the Company to recover and re-use at another location. The revenue from a very large number of calls is absorbed by this annual loss on inside wire, and it would be perfectly easy for each installer to save several nickels a day through the recovery of this wire.

A heavy line of open copper exchange wires was being taken down. The lineman in untying the wire so it could be reeled up, dropped the copper tie-wires on the street. A boy saw his opportunity, and followed the crew, gathering up the discarded tie-wires. His efforts for one day brought him upwards of \$5. It would have cost the Company little or nothing to have saved the tie-wires, and recovered the salvage that went to the boy. The foreman of the crew explained that he did not realize that the old tie-wires were worth saving. No individual or concern can afford to be wasteful. It is said that a certain general manager built a branch telephone office from the proceeds of copper tie-wires saved and sold as junk.

The few illustrations given above serve to show how the nickels can be conserved. There is opportunity for saving in every department and by every individual, from the president throughout the organization to the office boy. Even the soft voice of the operator can conserve the nickels by courteous treatment of subscribers, thereby preventing complaints that might cost several nickels to remedy.

The opportunities through which waste and consequent losses can occur in the telephone business are so numerous that it is impossible to prevent waste of miscellaneous supplies through supervision. More of this loss is due to thoughtlessness or carelessness than to deliberate wastefulness, although here and there individuals are found who seem to entertain the idea that a corporation is always rich, and who look upon any mention of expenses or suggestion of economy as an evidence of weakness or parsimony, forgetting the fact that an individual or a concern may deal with large affairs, and still be economical and thrifty. Therefore, any hope of economic cooperation lies in developing throughout the force such a spirit of fairness and loyalty as will secure for the company a full measure of efficiency from every individual on the payroll.

The railroads have had good results from their efforts towards economic co-

operation, and their savings already run into big figures. The personnel of the forces in the Bell System in this group and elsewhere throughout the country is as high as can be found in other industrial lines, and it is safe to predict that we can develop as sane economical cooperation as has been reached by the forces of the larger railroads of the country. To accomplish this every one of us must be an asset. If our work is not congenial we cannot do justice to our employer, and we should either adjust ourselves to conditions or get into another department, where the work will be to our liking and where we can make good.

All of the 35,000 individuals in the force of this group are invited to join in this economic movement and to resolve that they will do their best to conserve the affairs of the company in their control so as to prevent waste and unnecessary loss. Parsimonious saving or lowering of standards or wages is not the idea, nor is it necessary to do anything that will in any way depreciate the service due the public. What is necessary is greater individual responsibility, and the application of the rule of the "Square Deal" to our relation to the companies which we serve, and to see that nothing is wasted. If we do this the result in this group will be a saving of a half a million dollars a year. Let us adopt the slogan, "Waste Nothing," and let each one of us begin the campaign to-day.

Organization Changes in Michigan

Effective January 1, 1914, an important change was made in the operating organization of the Michigan State Telephone Company.

The former plan of organization (outside of the city of Detroit), consisting of four functional districts, is changed to eleven non-functional districts. The organization at division headquarters and the organization for Detroit city will remain functional.

Each district is to be in charge of a district manager reporting to the division department heads for the respective functions. District managers have the authority and responsibility formerly delegated to the district department heads. Exchange managers will report direct to the district manager.

The division officials reporting to the general manager are as follows:

Engineering and plant counsel, C. L. Boyce.

Commercial superintendent, G. M. Welch.

Plant superintendent, C. G. Sharpe.

Traffic superintendent, W. A. Spencer.

Engineer, C. Kittredge.

Division cashier and chief clerk, C. J. Pettithory.

The division of the territory and district appointments as announced in a bulletin issued December 31, 1913, by General Manager von Schlegell, are as follows:

DETROIT DISTRICT.

Headquarters, Detroit. Detroit commercial manager, C. S. Slack; Detroit plant chief, W. C. Kirk; Detroit traffic chief, W. A. Spencer.

EASTERN DISTRICT.

District manager, J. E. Scott. Headquarters, Detroit. Exchanges: Ann Arbor, Birmingham, Chelsea, Clarkston, Dearborn, Dexter, Farmington, Manchester, Milan, Monroe, Northville, Oxford, Plymouth, Pontiac, Redford, Rochester,

Roseville, Royal Oak, South Lyon, Trenton, Willis, Wyandotte and Ypsilanti.

GRAND RAPIDS DISTRICT.

District manager, C. E. Wilde. Headquarters, Grand Rapids. Exchanges: Allegan, Big Rapids, Casnovia, Conklin, Dorr, Grand Rapids, Grand Haven, Grant, Hart, Hastings, Hersey, Holland, Hopkins, Ludington, Muskegon, Newaygo, Reed City, Scottville, Shelby, Sparta, Wayland and White Cloud.

PETOSKEY DISTRICT.

District manager, A. J. Peckham. Headquarters, Petoskey. Exchanges: Boyne City, Cadillac, Charlevoix, Cheboygan, East Jordan, Elk Rapids, Fife Lake, Free soil, Harbor Springs, Kalkaska, Mackinaw City, Mancelona, Manistee, Onekama, Pellston, Petoskey, South Boardman, Traverse City, Williamsburg and Wol verine.

JACKSON DISTRICT.

District manager, A. W. Leet. Headquarters, Jackson. Exchanges: Albion, Athens, Augusta, Battle Creek, Burlington, Ceresco, Coldwater, Climax, Grass Lake, Hillsdale, Jackson, Jonesville, Marshall, Sherwood and Union City.

LANSING DISTRICT.

District manager, B. R. Marsh. Headquarters, Lansing. Exchanges: Bellevue, Byron, Charlotte, Corunna, Dimondale, Durand, Eaton Rapids, Fenton, Grand Ledge, Greenville, Holly, Howell, Ionia, Lake Odessa, Lansing, Mason, Mulliken, Olivet, Owosso, Portland and Wacousta.

SAGINAW DISTRICT.

District manager, H. R. Mason. Headquarters, Saginaw. Exchanges: Alma, Auburn, Bay City, Breckenridge, Clare, Coleman, East Tawas, Farwell, Flint, Flushing, Frankenmuth, Gladwin, Ithaca, Midland, Mt. Morris, Mt. Pleasant, Oscoda, Rosebush, Saginaw, Shepherd, Standish, St. Charles, St. Louis, Weldman, West Branch and Wheeler.

KALAMAZOO DISTRICT.

District manager, E. P. Platt. Headquarters, Kalamazoo. Exchanges: Benton Harbor, Berrien Springs, Buchanan, Coloma, Dowagiac, Eau Claire, Galesburg, Gallen, Kalamazoo, Martin, New Buffalo, Niles, Otgego, Plainwell, Richland, Scotts, Sturgis, St. Joseph, Three Oaks, Vicksburg, and Watervliet.

SAULT STE. MARIE DISTRICT.

District manager, E. E. Michaels. Headquarters, Sault Ste. Marie. Exchanges: Newberry, Mackinac Island, St. Ignace and Sault Ste. Marie.

MENOMINEE DISTRICT.

District manager, D. I. Dixon. Headquarters, Menominee. Exchanges: Amasa, Crystal Falls, Escanaba, Florence (Wis.), Gladstone, Iron Mountain, Iron River, Menominee, Niagara (Wis.), Norway, Powers, Rapid River and Stephenson.

MARQUETTE DISTRICT.

District manager, K. S. Baker. Headquarters, Marquette. Exchanges: Calumet, Champion, Gwinn, Houghton, Humboldt, Ishpeming, Ironwood (Inc. Bessemer and Wakefield), Lake Linden, Marquette, Michigamme, Negaunee and Republic.

PORT HURON DISTRICT.

District manager, C. C. Failing. Headquarters, Port Huron. Exchanges: Algonac, Armada, Carsonville, Lapeer, Marine City, Metamora, Mt. Clemens, New Haven, Port Huron, Romeo, St. Clair, Utica and Washington.

Carrying Cables Across Rivers in Chicago

The City of Chicago is naturally separated into three divisions by the Chicago River. Originally one branch came from the northwest and another from the southwest, the two uniting just north of Lake street and west of Market street, and flowing east a little over a mile to Lake Michigan. These three sections of the city thus separated are called the North, South and West Sides, though these terms do not apply strictly to the corresponding geographical divisions.

The main business center of the city has grouped itself about the mouth of the Chicago River and the territory lying between the confluence of the two branches of the river and Lake Michigan.

The accompanying outline map of the city shows the territorial boundaries of the several offices in the Chicago Exchange. It is natural to suppose that the busiest telephone centers in the city will be found in the main business section, and, as a matter of fact, approximately one-sixth of the total telephone stations in Chicago are located in the Main, Central, Harrison and Wabash districts.

The Toll Building, in which all the long-distance lines entering the city are terminated, adjoins the Bell Telephone Building, in which the Main office is located. As a result of these conditions, the principal trunk paths from all the outlying offices lead toward the center of the city and have to be carried across the different branches of the river at various points. For convenience of reference, the crossings have been numbered on the map and will be referred to by number.

Nearly all trunk cables coming from the North Side into Main, Central, Harrison, Wabash and the South Side offices cross the main branch of the river at La Salle street (No. 1 on map). There is a tunnel under the river here owned jointly by the Chicago Telephone Company and the Commonwealth Edison Company. This tunnel is of concrete, and is approximately six feet six inches high and six feet six inches wide inside. The Chicago Telephone Company conduit is built up from the bottom along the east side of the tunnel and consists of forty-eight ducts, and the Commonwealth Edison Company conduit is built up from the bottom along the west side of the tunnel. This tunnel is connected with the surface by means of vertical shafts and the conduit is continued from the tunnel, via the shafts, by means of iron pipe. The ducts of the two companies appear in vaults separated from each other by a brick wall, so that the workmen of one company are never near the cables of the other company. Each pipe is made continuous, so that the cable is pulled from the top of the shaft on one side of the river to the top of the shaft on the other side, a distance of approximately 600 feet. This conduit tunnel is a little to the west of the main railway tunnel and at a slightly lower level.

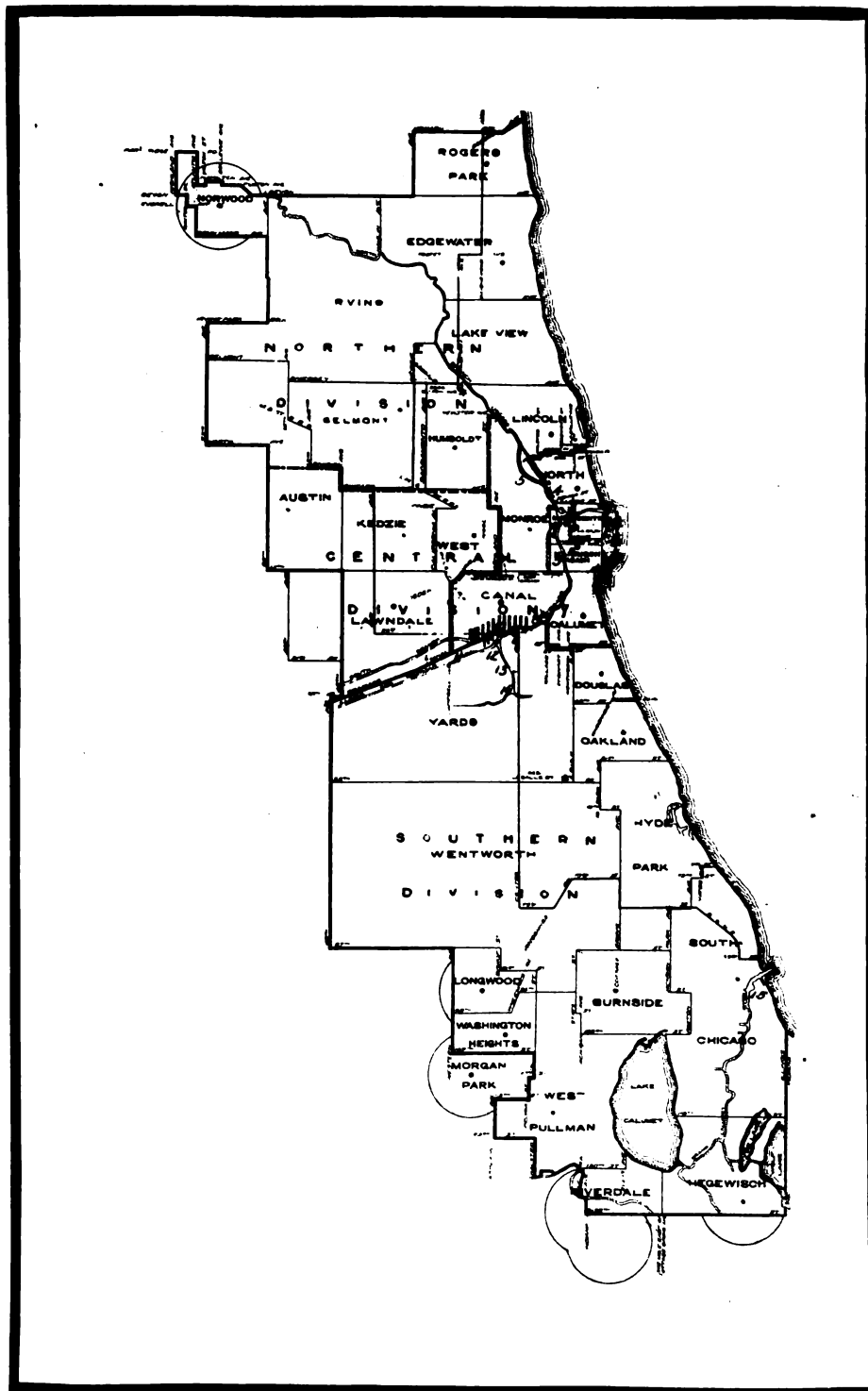
The trunk cables from the West Side reach the downtown exchanges by means of a similar tunnel under the south branch of the river at Washington Street (No. 2 on the map), where also the telephone company has forty-eight ducts, although a few of these cables are brought into the Harrison Exchange by way of the city tunnel across the river at Harrison street (No. 3), at which point the city has installed seven ducts for the use of the telephone company. These ducts are continuous from one side of the river

to the other as in the La Salle Street and Washington Street tunnels. Aside from trunk and toll cables, subscribers' cables have also been installed in these three tunnels for feeding those parts of Main, Central, Harrison and Wabash Exchanges which lie north and west of the river.

In order to connect the offices on the

is similar to that in Harrison Street—namely, iron pipe conduits have been installed through these tunnels belonging to the city and the telephone cables are pulled through these and thence connected with conduit adjacent to the shafts of the city tunnel.

Trunk cables into exchanges on the West Side and those somewhat south of Main, Central, Harrison and Wabash are carried across Twenty-second Street (No.



North Side lying along the general direction of the shore of the lake with the offices farther west, i.e., the northwest part of the city, it is necessary to cross the north branch of the river at several points. This is accomplished by the use of city tunnels at Chicago Avenue, Division Street and Western Avenue (No. 4, 5 and 6, respectively). The method here

7.) These cables are carried across through conduit belonging to the Commonwealth Edison Company, from whom the telephone company rents a sufficient number of ducts to care for its needs.

The method of effecting the crossing from the West Side to the South Side is by means of cable carried over the Halsted Street lift bridge (No. 8), as de-

scribed in the BELL TELEPHONE NEWS for January, 1913.

Conduit has also been installed in the city water tunnel on Throop Street (No. 9).

Crossings are effected at Archer Avenue (No. 12) by means of ducts rented from the Commonwealth Edison Company, similar to the method used on Twenty-second Street, and on Thirty-fifth Street (No. 13) and Thirty-ninth Street (No. 14) by means of conduit installed in the city water tunnels. The only other place where telephone cables are carried through tunnels is at Ninety-fifth Street (No. 15). That part of the city between the lake and the Calumet River is furnished telephone service through cables installed through the city water tunnel across the river on Ninety-fifth Street.

The only submarine cable which is being used in making river crossings is at Thirty-eighth and Iron Streets, although there are few other locations where lines are carried across by means of ordinary lead-covered cable laid on the river bed.

On Ashland Avenue (No. 10) at the south branch of the river a fifty-pair cable crosses from one bank to the other, and is used for feeding that territory between the south branch of the river and the Drainage Canal. Part of this cable is also used for a few toll lines, which are connected with a pole route along the Drainage Canal from Ashland Avenue west beyond the city limits. Originally this was the main feed for long-distance lines and we had three 100 pair submarine cables crossing the river at this point. About a year ago the river was dredged out and made deeper and the cables were dragged out by a dredge at that time. The service was continued by dropping an ordinary lead-covered cable into the bottom of the river. The western part of the territory between the south branch of the river and the Drainage Canal is fed by a twenty-five-pair lead-covered cable dropped into the river and carried across at Western Avenue (No. 11).

A rather interesting case arose last summer where it was necessary to carry telephone wires across a considerable expanse of water during the Water Carnival. This carnival was held on the break water pier running south from the new Life Saving Station, which is about one-third of a mile out from the main shore (No. 16). The *Chicago Daily News* desired to have a telephone station on this pier during the progress of the carnival. This service was furnished by dropping a five-pair lead-covered cable into the bottom of the lake from the main shore line to the Life Saving Station, a distance of about 1,700 feet. This cable was installed with the idea of taking it out again as soon as the carnival was over. The United States Government requested, however, that this cable be left to give service to the government office located on the pier.

All of this shows one more feature of the general system necessary to give telephone service to a city by means of underground cable. The cable must be so disposed as to be out of danger of damage and at the same time accessible to the telephone company.

A Bunch of Dead Ones

B. L. Strong and his corpse of men are pushing the work on the Farmers' Mutual Telephone line. They expect to have it all in good repair this week so the children can call old Santa Clause in due time.—From a newspaper published in Rushville, Ill.

Mr. Vail on A. T. & T.-W. U. Dissolution

The *Boston News Bureau* in a recent issue said:

The daily press published last week a statement by Congressman Lewis of Maryland in the House criticising certain features of American Telephone-Western Union dissolution. Certain statements in this purported interview were so at variance with the real situation, as we understand it, that we asked President Vail for a statement of the facts. Mr. Vail says:

"I cannot believe that Mr. Lewis made any such statement. It is on a par with such statements as have been made that the government intended buying the telephone lines for the purpose of destroying the telegraph properties, which none but a few timid shareholders put any credence in, and a policy which we believe would not be supported by any administration.

"When the American Telephone and Telegraph Company acquired its interest from the Western, two-thirds of the directors and about the same proportion of the executive committee, representing the other shareholders, remained.

"Western Union Company earnings had been impaired, its operating force demoralized, its dividends reduced. In the preceding fifteen years its capital had been increased \$50,000,000 for new construction without any increase in net revenues from telegraph business.

"Immediately after American Telephone and Telegraph acquired its interest, Western Union directors had a thorough examination of the plant made and a thorough examination of its possibilities from every standpoint. It was found that though the earnings had been impaired, its outstanding capital was well represented by property, but not all of it was in good condition.

"It was estimated that the three per cent. dividend could be continued and a very considerable increased amount put into maintenance, improvement, renovation and reconstruction; also that the operating organization should be strengthened, wages improved and operating conditions bettered. It was thought that these improvements could be completed in from five to seven years.

"This policy was adopted; substantially all surplus over and above the three per cent. dividend was set aside for these purposes.

"The results of the workings for the three years ending October 31, 1913, as compared with the three years ending June 10, 1910, are as follows:

"Gross cable and line revenue, \$125,190,000, an increase of \$38,305,000, or forty-five per cent.

"Wages paid, not including cable maintenance, construction or reconstruction wages, \$48,000,000, an increase of \$16,566,000, or over fifty per cent.

"Construction, excluding real estate, \$3,791,000, an increase of \$360,000, or 15.5 per cent.

"Amount set aside out of earnings for maintenance, improvement, renovation and reconstruction, \$22,624,000, an increase of \$8,200,000, or nearly fifty-seven per cent.

"Amount of above unexpended, but carried in reserve for these purposes, \$2,660,000.

"Of the amount expended for maintenance, renovation, reconstruction, \$2,847,

000 could properly have been charged to construction, and will have to be so charged under the present accounting regulations of the Interstate Commerce Commission. This will increase the visible surplus by that amount during the continuance of abnormal expenditures.

"It is estimated that these abnormal expenditures will be completed in two and a half to three years when the property of the company will be in good going condition and so maintained by normal expenditures.

"If the benefits resulting from this work continue, it is expected that at the very least \$1,000,000 a year will be saved in operation. The litigation between the Western Union and the American Telegraph and Telephone Company in respect to the interpretation of the contract of 1879, in the courts of the last thirty years, has been finally decided, partly in favor of Western Union, and that company received December 16, 1913, \$3,300,000 as its share. This sum is nothing but deferred earnings and could be distributed to the shareholders either in one dividend or spread over the years during which abnormal expenditures will continue. The financial condition of Western Union was never better. It has liquid cash assets, less current liabilities of some \$15,000,000, sufficient to take care of all construction demands for years to come if the surplus revenue is not adequate for that purpose.

"Unless conditions change very much for the worse shareholders of Western Union are on the eve of getting some return for their patient waiting, and this return should be continuous and increasing.

"The new service inaugurated by the company in spite of adverse criticism and charges of unfair competition from some quarters, have been revenue producing and profitable, and of great benefit to the public, and have not in any way affected adversely the regular business at regular rates. These were introduced in spite of the belief on the part of many that they would largely affect the long-line telephone business.

"The results have demonstrated that with equally available facilities for both the telephone and telegraph are not competitive, if telephone and telegraph facilities are equally available for the particular purpose for which each is used.

"Can any misrepresentation or misleading argument possibly harmonize this with the statement that the telephone trust has reaped the cream of the business. On the contrary, it has left the cream to be gathered by others."

The Wilds of Chicago

A rather interesting illustration of the survival of an aboriginal attitude of mind is found in connection with a case of trouble reported as follows by O. J. Simmons, wire chief at Rogers Park:

"On the day before Christmas we received a report of 'Don't answer' on the telephone of a grocer in our district. The tester rang the subscriber and, after some time received an answer. He told the grocer that people were complaining of his not answering the telephone. He replied, 'Don't bother me by testing my line—don't you know that we are terribly busy today. We haven't time to answer the telephone.' We OK'd the D. A. as 'Too busy to answer.'"

Chicago Telephone Company's City Exchanges.

VI.—Oakland.

By F. E. Judson, Wire Chief, and W. R. Moline, Switchboard Foreman.

Oakland office, now the third largest of the Chicago exchanges, was originally installed in 1880 in the rear of a drug store at 3901 Cottage Grove avenue. At that time there were five subscribers' lines which were brought in through a window to a box on the side wall and then carried without protectors to a fifty-line cordless "Gilliland" switchboard.

Thirty-ninth street was the boundary line between Chicago and Hyde Park. There was then another telephone office operated by the Western Union Telegraph Company, under the Edison patents, located one block south of our office. These two offices were consolidated in the Oakland exchange.

At this time one operator was able to handle all the calls, act as cashier, and keep the messenger boys under submission as, in addition to the telephone work, we were handling the A. D. T. messenger service. Our growth was quite gradual, but new facilities were soon needed and in 1884 J. J. O'Connell of our present engineering force, whose name is well known by all the Chicago telephone men, received an order which read as follows: "New switchboard has been delivered at Oakland office. Go there and connect it up." (Signed) "B. E. S." This was a standard fifty-drop, grounded circuit board with jacks below the drops, five clearing-out drops, five pairs of cords, five ringing and listening keys, and a hand generator for night service. The regular ringing generator for day service was driven by the line shaft of a nearby planing mill.

Additional switchboard sections were installed from time to time as the increased traffic demanded. In 1892, partly due to the increase of business caused by the World's Fair, the old system was found inadequate and a new multiple switchboard equipped to handle metallic circuits, was installed. At this time there were nine A and four B positions which were handled by about twenty-five operators.

When Hyde Park was annexed to Chicago in 1897 we were unable to accommodate our increased traffic and larger quarters became necessary. Land was purchased and a new building especially designed for telephone purposes was erected at our present location, where an express semi-common battery switchboard was installed, each subscriber having in his telephone a storage battery which was charged over his line. The B operator in addition to handling the "in" trunks, had to transfer all calling subscribers to the A operator by means of a placing cord system. When the subscriber took the receiver off the hook to make a call, a lamp would light in front of the B operator and she would transfer the calling party to the A board where lamps would light in front of from three to six operators, any one of whom could pick up the call and complete the connection. This type of board was used until 1901, when it became obsolete and seven sections of A and five sections of B standard No. 1 type board with 3,000 subscribers' multiple in both A and B boards were installed. We then

had 200 outgoing and 200 incoming trunks. From this time on the growth was very rapid and new sections of A and B board were added until it became necessary to have larger quarters. Additions were made in 1907 and on February 22, 1908, the Drexel unit was cut into service with forty A and fourteen B positions. The continued rapid increase in traffic soon made a third unit necessary and Kenwood was installed February 1, 1910.

At present Oakland office has nearly 21,000 subscribers' stations with ninety-four working A positions and thirty-eight working B positions, 1,042 "out" trunks and 1,238 "in" trunks. Three sections of B board and six sections of A board are being installed, which, when completed, will make a total of 154 positions. A force of 360 traffic and thirty-five maintenance employees is kept very busy handling all of this.

For charging the office batteries, we have a Type M-8 800-ampere, thirty-volt Western Electric generator, direct connected to a 37½-hp., 220-volt Western Electric motor. This is supplemented for emergency purposes by a Type M-7 thirty-volt, 600-ampere Western Electric generator belted to a twenty-five-hp. Nash gas engine. In addition we have duplicate sets of ringing generators, coin collecting generators, and generators to operate our message register meters. One set of each is driven by 220-volt motors, the current for which is obtained from the Edison Company. The other set is battery driven. The storage battery plant consists of eleven cells of 35-H. elements, which is probably as large a battery as is in use in any telephone exchange.

At our present rate of growth the quarters we now occupy will soon become inadequate and plans for extensive additions and alterations are being considered.

Reception at La Salle

City officials of La Salle and Peru and a number of prominent citizens attended an informal reception given December 24th by Manager F. W. Atkins at the Central Union offices. The object of the affair was to show outsiders the inside workings of the telephone plant. After being greeted in the manager's office, the visitors were conducted into the long room occupied by the operators, where a very busy scene was in progress. Elizabeth Fitzgerald, the chief operator, explained the mysteries of the network of cords, numerous plugs and hundreds of little electric lights that were a mystery to the beholder. They were also shown the method of making connections at the toll board, through which calls are answered from long distances. The use of the automatic time clock was explained, which rates up the charges on toll calls, and which, the operator assured her hearers, could not make a mistake. The spectators left this room with various impressions, but there was one which everybody seemed to hold, and that was to the effect that there was some excuse for an operator in case of an occasional error, so intricate and complicated was the system.

The visitors were then shown the other

portions of the plant by the plant chief, William H. Huston, who explained the various things in his department.—*La Salle Post*.

Bell Telephone Bowling League

Standing of the Teams, January 15, 1914.			
Team—	Won.	Lost.	Pct.
Installation	34	8	.810
Engineers	33	9	.786
Commercial	29	13	.690
Maintenance	28	14	.667
Traffic	23	19	.548
Construction	20	22	.476
Revenue	18	24	.429
A. T. & T.	14	28	.333
Collectors	7	35	.167
Suburban Commercial	4	38	.095

The Installation Team in the Bell Telephone Bowling League of Chicago jumped to the top by a margin of one game on January 15th. The Commercial team, picked to win, stood third and was four games behind the leaders, with the Engineers between. This seemed to put another face on the situation and the fight will be keener as the season wanes.

Carey, of the Commercial team, still stands at the head of the individual average column, with an average of 191 for forty-two games to his credit.

Bell Telephone Indoor Baseball League

STANDING, JANUARY 23, 1914.			
Plant—	Won.	Lost.	Pctg.
Plant	5	0	1.000
Auditors	3	2	.600
Oakland	1	3	.250
Collection	0	4	.000

SCORES OF GAMES DECEMBER 10 TO JANUARY 16.

Dec. 10—Plant, 27, vs. Oakland, 19; Auditors, 16, vs. Collection, 6.
Dec. 17—Plant, 8, vs. Auditors, 7; Oakland, 10, vs. Collection, 9.
Jan. 7—Plant, 11, vs. Collection, 7.
Jan. 9—Auditors, 19, vs. Oakland, 1.
Jan. 14—Auditors, 17, vs. Collection, 5.
Jan. 16—Plant, 18, vs. Oakland, 9.

January 23, 1914.

Central Plant.			
	R.	H.	A.
Schuler, 3d	2	2	3
Moersbacher, 1s	1	2	4
Harnett, rs	0	0	2
Carney, c	1	2	1
Osborne, 1st	1	1	3
Garry, 2d	0	0	0
Fremi, p	0	0	1
Delaney, f	2	2	2
	7	9	16

Auditor.			
	R.	H.	A.
Robertson, c	1	3	0
Lea, rs	0	0	3
Sullivan, 1st	1	1	2
Carney, 2d	1	1	0
Dubenstein, 1s	0	1	4
Thilmut, 3d	1	0	0
Dillon, p	0	1	2
Perina, f	4	0	0
	4	7	11

2-base hits—Off Fremi, 1 (Robertson); off Dillon, 2 (Moersbacher, Carney). Bases on balls—Off Fremi, 5; off Dillon, 4. Struck out—By Fremi, 13; by Dillon, 19.

Notes.

The game of Jan. 23rd was a duel of the star twirlers, Fremi and Dillon, and a struggle for the leadership of the league in which the Plant team won out.

The batteries for Oakland are Dubach & Walker, and for the Collection Moeller, the star twirler, who led the Traffic team to victory last year, and Hardin.

The games are played every Wednesday and Friday nights at St. Alphonsus Gymnasium, Southport and Lincoln avenues and Wellington street. Games called at 8:30 p. m.

The Rooters Association of the league is in need of support. Come out and join them. Make lots of noise where it will do good rather than harm.

A Practical Installer's Lamp

All of the numerous lamps so far devised for the use of installers are open to the objection of having a more or less unprotected flame. A pocket electric flashlight is inconvenient because of the difficulty in bringing the light on to the man's work. The cuts show an electric lamp attached to a leather strap across



INSTALLERS' LAMP IN POSITION

the breast. The lamp can be tilted up and down or the whole strap moved on the supporting braces. The battery is carried in a small leather pouch on the belt. Slack wire to allow the up and down adjustment of the lamp strap is also stored in this pouch.

Figure 1 shows a man wearing the device under his coat. Figure 2 shows the way it is put together. Figure 3 shows the man in a basement. The lamp illuminates the space where he is working brilliantly. When the lamp is not needed the coat can be buttoned over it, if one desires, and still it is always ready for use. A lamp on the cap would either have to be worn conspicuously all the time or taken off and carried about. The arrangement here shown combines convenience and safety with moderate cost.



SHOWING ARRANGEMENT OF STRAPS

W. P. I. Western Alumni Meet

A very enthusiastic meeting of the Western Alumni Association of the Worcester (Mass.) Polytechnic Institute, in the form of a dinner to Dr. Ira N. Hollis, who has this year taken the presidency of the Tech., was held Wednesday evening, January 28, at the University Club in Chicago. Dr. Hollis is well known to the engineering profession, and is remembered by all Harvard men as the Harvard Director of Athletics and the father of the Harvard Stadium.

Dr. Hollis was the principal speaker at the dinner and brought good news of the eastern institute, which is one of the best engineering colleges in the country. About \$500,000 has recently been added to the endowment, part of which is available in the form of a free scholarship to men from Illinois and other parts of the country. The W. P. I. is in no way a local institution, but draws its students from all over the world.

Elwood Haynes, the father of the automobile, and a graduate of the class of 1881, was present and was listened to with great interest. The announcement that the alumni athletic field, for which the alumni recently raised \$150,000, was nearly completed and ready for football, baseball and tennis next year, also that the large new gymnasium would be started in the spring, was greeted with cheers by the old grads. About thirty of the local alumni were present at the dinner, which was presided over by Albert P. Allen, class of 1889, the president of the local association.

During his western trip Dr. Hollis will visit the Illinois State University, the University of Wisconsin and other institutions of learning with special reference to seeing their engineering departments.

Jaw-Breakers from Germany

The *Western Electric News*, in a recent issue, comments upon the enormous length attained by some of the words in the German language. Below are given a few examples of some of the more impressive technical terms that are encountered by American and English employees of the company's Berlin branch. No words of less than thirty letters have been admitted to this collection, as words containing twenty-five or thirty letters are so numerous as to be commonplace.

GERMAN WORDS.

1. Wahrscheinlichkeitsrechnungslehre.
2. Bernsteinigkeitskundebeßissner.
3. Stromstossaufspeicherungsapparat.
4. Blitzschutzvorrichtungstreifen.
5. Hochfrequenzschwingungsenergie.
6. Mehrfachsprechleitungsübertragereinschaltungsline.
7. Streifenabfühlkontaktvorrichtung.
8. Teilnehmerleitungsanrufkontrollrelaisstromkreis.
9. Nachbarortsverbindungsleitungsviel-fachklinkenstreifen.
10. Vierwaldstättenseesalondoppelschraubenpostdampfreactienkonkurrenzgesellschaftsbüroangestelltenerholungshelm.
11. Kanarienvogelzuchtvereinvorstand.

ENGLISH TRANSLATION.

1. The Science of Probability Calculations.
2. Electrical engineering student.
3. Register (used in automatic telephony).
4. Strip of lightning protectors.
5. Energy of high frequency oscillations.



INSTALLERS' LAMP IN USE

6. Multiple jack for the switching in of a phantom repeater.
7. Rubbing-feeler contact-device.
8. Subscribers' line control relay calling circuit.
9. Strip of suburban trunk line multiple jacks.
10. This the gem of the collection, being composed of no less than 109 letters. A rough translation of this word is: "Home of rest for the office employees of the Lake Lucerne saloon double-screw postal steamship competitive stock company."
11. Committee of the Society for the Propagation of Canaries (!!).

Quick Work in Vain

While Miss Kessler, chief operator for the Wisconsin Telephone Company at Shawano, Wis., was on duty at the switchboard on Christmas day, she received a call from the "pond" asking that help be sent at once as a boy was drowning. Miss Kessler immediately notified Manager Ledvina and Repairman Candlish who, with the city policeman and four doctors hurried to the scene of the accident. Within eight minutes after the call was received by the chief operator the body was recovered. However, all efforts to revive the drowned boy were unsuccessful.

Operator Saves Train

To the heroism of Mrs. Addie Gammon, telephone operator at Hudson, Colo., 150 persons on a Chicago, Burlington and Quincy passenger train from St. Louis and Kansas City owe their lives. The dam of the Great Horse Creek reservoir in the Henrylin irrigation district collapsed at 2 o'clock on the morning of January 29th. A 100-ft. wall of water swept down. All telegraph wires were swept away, but telephone communication was left intact. Mrs. Gammon called farmers, who flagged the train before it reached Box Elder Creek bridge, where the approaches had been washed away.

Wire Goes Down

Effective January 1st, the Indiana Steel and Wire Company, of Muncie, Ind., announces a reduction of a quarter of a cent per pound on telephone and telegraph wire. The Indiana Company has issued to the trade a very attractive pamphlet, "Just Plain Wire."

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst



CHRISTMAS TREE FOR POOR CHILDREN AT ANDERSON, IND.

Christmas Giving Among the Bell Employees

We make no apology for reporting Christmas giving in the February News. In fact, we rather rejoice that we can prolong the record, as it may prolong the true spirit of Christmas, which we wish might spread over the whole year.

Some one has called Christmas the "flood-tide of the year." To the people who live where the tide comes in from the ocean, and who have seen the "flood-tide" or the high tide of the year, when the ordinary landmarks are covered with the overflow of the great sea, when every little creek and inlet is cleansed and filled with the clean, salt flood—to them this simile will mean that at this time the wonderful good will in the heart of the universe overflows the barriers we put up during the other months of the year. At Christmas our hearts are full of generosity and tenderness towards the

poor, and every one about us feels the touch of our sympathy.

To keep the barriers down and make Christmas last over all the year, in spirit at least, is a high aim, and one that more and more is expressed on the Christmas cards of good wishes that we send out.

The picture of the Christmas party given in Anderson, Ind., by the employees of the Central Union Company, and the story about it, is a beautiful illustration of what Christmas meant to one exchange and how the "flood tide" reached even these poor little waifs, who have come from far away shores to our own. The picture is a marvel of photography, for in these little faces we see the story of the great tide of immigration to these friendly shores, the story too of little lives which are losing the joy of careless childhood and loving care, because poverty has been their heritage. But for one day at least they are remembered and we are glad that the Anderson oper-

ators made the American Christmas mean something to them, which they will not forget.

Other stories are still coming in of generous offerings from our generous girls all over the five states. "Universal Service" is not confined to the telephone wires, our girls are not machines but very human in their sympathies, and well filled baskets and other tokens of their Christmas spirit were plenty.

It is pleasant too, to note that subscribers were responsive at Christmas time. Boxes of candy, gifts of money, flowers, handkerchiefs and a variety of presents indicated a satisfaction with the service, which was not only gratifying to the girls who received them, but also to the Company whom they represent. Some of the notes received are in this number, but space cannot be found for all.

Now let the "flood tide" spread out over the year, and the spirit of good will, sweeten and purify all of our lives

in this New Year of 1914, and we venture to predict that the Telephone operators with this spirit will give the best service at the board, and make the most "Satisfied Subscribers."

The Girl Who Speaks for the Company

MILLIONS OF OPPORTUNITIES A DAY FOR THE TELEPHONE OPERATORS TO REPRESENT THE COMPANY TO THE PUBLIC!

Did you ever think that in reality you girls are the direct representatives of the Telephone Company to most people? If a subscriber is happy over the service he gets every day from you, he says to his friends, "The telephone is a great thing and we ought to be proud of the Company we have here." If perchance he has met with some wrong numbers or some indifferent operators, or an unsatisfactory supervisor—he may be heard saying, "That Telephone Company is the limit." And in each case, you see, you girls directly represent the Telephone Company.

It is an honor, isn't it, to feel that you are the Company to thousands of people—that you make its reputation—give it a position in the city or town where you work? It is an honor that all loyal girls will be glad to realize, and there are no more loyal girls in the world than the telephone operators. The work itself has a fascination for the good operator, and the character of the employers, and the consideration shown by them, has made a host of operators who speak in enthusiastic terms of their Company and the "Big Blue Bell."

But they have the chance not only to speak of the Company, but for the Company. The subscribers meet other representatives of the Company, possibly four times; they meet you millions of times a day. When a subscriber gets his telephone, he meets a representative of the commercial department; when it is in-



MRS. AMANDA SMITH.

Mrs. Amanda Smith, local operator at Albion, Ind., has an enviable record. She has not been absent from duty for more than five years.

stalled, he may meet one of the installation men. Then he meets the collector, or comes into the commercial department to pay his bill. He may be well pleased with all of these men who have politely served him, and they are the Company to him.

But should he get called up in the night by the wrong number, or get cut off in his conversation, or hear an impatient tone in the supervisor's response to his complaint, it will be the Telephone Company he will blame, and not any department, or any one girl.

There is a sense of dignity which comes with this feeling of responsibility.



CHRISTMAS WITH DETROIT OPERATORS.

We may know that it is undeserved—this honor, or perhaps this blame, that is thrust upon us by the public—but we can see that we are the link that binds the Company and the public together, and we can produce a spirit of cooperation, or spirit of dissatisfaction, just as we choose.

If we realize the situation and perceive that we are not mere machines, we will be enthusiastic over our chance to make our system renowned for the best service in the world. It will take away any indifference in tone which makes the subscriber feel uncertain as to the desire of the operator to serve him. It will prevent any cross tone, for, however much the subscriber may irritate by his impatience or his blunders, the operator or supervisor, is too well trained in good manners to "answer back," and often "a soft answer turneth away wrath." In fact it is very poor policy to give back the cross word.

"Heat not a furnace for your foe so hot,

That it do singe yourself."

Good for evil is quite the best policy. It brings its reward in the attitude of the subscriber to yourself, and more than that, it shows that you know the dignity of your position as a representative of the Company, and are above yielding to any selfish impulse of your own.

The girl who speaks for the Company has a chance to show her superiority over the persons she serves, and if she calmly goes on giving the pleasant rejoinder, her own unruffled attitude will by and by have its effect in educating the people, and the millions of calls a year answered in this way, will make the Telephone Company stand in the community for a splendid organization, and the most helpful invention of the century.

Christmas With the Detroit Operators

The operators of the various Detroit exchanges were very well remembered by the subscribers at Christmas.

Hemlock 370 (Auto Garage) remembered the Hemlock girls with an eight-pound box of candy which every one helped to empty. The Main and Cherry girls received a large number of presents from subscribers.

The operators also did not forget the poor families and orphans; the girls from the East exchange contributing very gen-

erously and the contributions being gratefully received. The teachers from the operators' school gave a nice Christmas bundle to the Barrett Club; the girls at the Club were very thankful. The Main, Cherry and long-distance girls organized a good-fellows' club, and it wasn't long before the good-fellows had a store of good things to distribute among the poor.

The company had automobiles in front of the building Wednesday, December 23, 1913, and the girls played Santa Claus for seventeen poor families.

Party for Poor Children at Anderson

By Mary E. Schies, Chief Operator.

Operators at Anderson, Ind., were so successful with their Christmas party in 1912 that they resolved to do something again in 1913. "What shall we do to make the poor children happy this Christmas?" was the question.

To stimulate inquiry the pictures that were taken of the toys, and the girls dressing dolls, which were presented to the Associated Charities during Christmas 1912, were posted on the bulletin board. A collection of twenty-five cents each was taken up. Forty dolls were bought and the operators took them home to be dressed. About this time Miss Wharton, Secretary for the Associated Charities, called and asked if the girls expected to help them this year. She was told that the operators were preparing for something, but the question was up as to whether we should have a "Children's Party" or donate the dolls and stockings of candy to her for distribution. Miss Wharton said if it was decided to have the party, she could supply any number of poor children. A notice was posted on the bulletin board requesting each Operator to vote as to whether she favored the party. All voted



READY TO DISTRIBUTE CHRISTMAS BASKETS AT DAYTON, OHIO.

"Yes." Manager Lee then gave permission to use the vacant room next to the chief operator's office. The plant department took up a collection to help buy the toys. Mr. Wells, wire chief, donated a large Christmas tree, and some paper decorations. The tree was erected and wired with colored electric lights, and the room was decorated.

A committee of the girls who were off duty in the morning was appointed to buy the oranges, eight dozen. Another committee of girls who were off duty in the afternoon, was appointed to buy the candy, fifty pounds. Still another committee, of girls who were off duty in the evening, was appointed to buy forty-five toys for boys, drums, horses on wheels, horns, wagons, engines, and an elephant on wheels. Seven yards of white mosquito netting were bought, a pattern procured, and ninety stockings cut out. These were distributed among the operators to be sewn up. They were very prettily bound with brightly colored yarn. The dolls were coming in fast and the "Christmas Room" was the most visited in the building. The operators secured the trimmings and dressed the tree. Sunday morning, some of the operators who were off duty filled the stockings with candy and oranges. Miss Wharton sent invitations to eighty-six children, from one to twelve years old. The young ladies in the commercial department added to the collection, some dolls, a boy's toy and a book. Tuesday at 3 p. m. was selected as the hour for distribution, because the switchboard loads were lighter at this hour. Mr. Williams, the plant chief, was Santa Claus, and a very good one he made.

At 1:30 p. m. the children began to arrive and were told to go into the "Christmas Room" and look at the tree. This they did to their hearts content, also reading the names, which were written on slips of paper and pinned to each toy, and telling one another when their names were found. After a time some of

the children found their way to the door of the local operating room. As they were very orderly little tots we allowed them a closer view, and they watched the work with great interest. One little boy about three years of age, watched the supervisor for some time, then walked up to her and said "What's yu name?" This of course was enough to unsettle the gravity of the operators but they bravely straightened their faces. Suddenly Santa Claus was heard coming down the hall, his sleigh bells jingling merrily,

and the operating room was promptly vacated.

After the toys were distributed the children formed a line in the hall, and as they marched past Santa Claus he presented each one with a stocking filled with candy and an orange.

If the pleasure we had in preparing for the occasion had not repaid us, we were amply compensated by the shining eyes and happy faces of these little tots, who, Miss Wharton said, were the poorest children. The knowledge that we had helped these little ones to be happy, drew us closer together and made our Christmas happy. It also made us realize "To give to the world the best you have, and the best will come back to you."

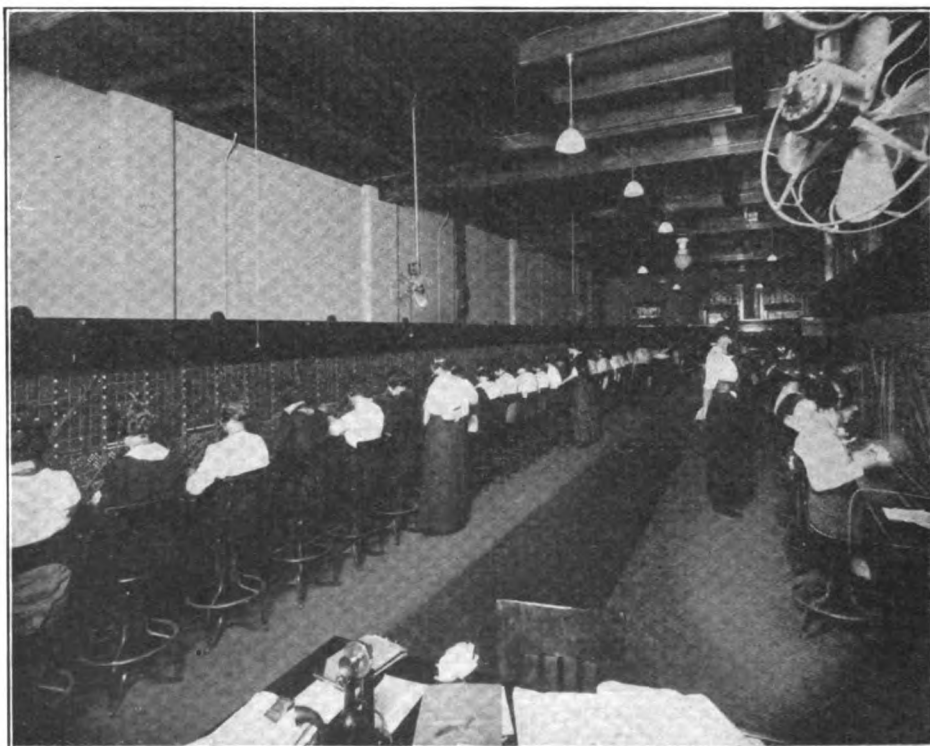
Christmas at Dayton

Filled with the spirit of helpfulness toward those less fortunate, a group of Bell Telephone employees of the Dayton, Ohio, exchange displayed a very commendable spirit during the holidays.

Headed by Charlotte Fulwiler, chief toll operator, and assisted by Lola Shank, Gertrude Duffy and Jeannette Koogler, a subscription amounting to approximately \$75 was secured, members of the plant commercial and traffic forces contributing. With this amount, the girls displayed unusual judgment in the purchase of various articles of food, filled twenty-five large baskets and distributed them to worthy families the day before Christmas. These were largely families to whom Christmas would have meant little or nothing more than any other day, except that its cheerless aspect would be darkened even more by the thought of the joy and happiness prevalent in the homes of those whom circumstances had made more fortunate.

A thorough investigation by the girls, of the families who were really in need of outside help, disclosed to them certain conditions upon which the items and the amount of them were apportioned; but into every basket went the following:

One large chicken, two loaves of bread.



MAIN OPERATING ROOM, DAYTON, OHIO.

one-half peck of potatoes, one sack of flour, one sack of cornmeal, one pound each of beans, rice, lard, bacon, sugar, coffee, and candy, and one can of corn and cream. Oranges and bananas, and where there were children—as was true in practically all cases—toys of all descriptions were added.

It can be imagined with what gratitude the worthy recipients of such kind charity gazed on the contributions as they were distributed.

Many comments were heard on the thoughtfulness and goodness of the girls who conceived this plan, which furnishes only one instance of the spirit of kindness which the girls of the great telephone system possess in large degree with their many other good attributes.

Greenwood Girls Appreciated

Manager F. D. Fee, of the Central Union exchange at Greenwood, Ind., received the following letter from the J. T. Polk Company, large vegetable canners:

Greenwood, Ind., Dec. 31, 1913.
Mr. Frank Fee, Manager Central Union Telephone Company, Greenwood, Ind.:

Dear Sir—In closing the old year we feel like expressing appreciation of the things that have tended to facilitate our success and lighten the cares coincident with a big business.

The telephone is a vital organ in the anatomy of commercialism and if it works not in accord with the rest of the big system, an unhealthy condition results. Through it our contact with the outside is harmonized or made annoying, just as the service is efficient or inefficient.

Our personal experience with your exchange the past year has been such as to call forth our commendation. An exceptionally high average of courtesy and promptness has characterized the attitude of your operators toward our office and we assure you that we are not unappreciative of such cooperation.

We extend to you our best wishes for a happy New Year and for the personal happiness and prosperity of each member of your organization. Yours very truly,

J. T. POLK COMPANY.

Good Service at La Salle

The following letter accompanied a twenty-five pound box of candy sent by the German-American Portland Cement Works to the operators at La Salle, Ill.:

La Salle, Ill., Dec. 24, 1913.
Chief Operator, Central Union Telephone Company, La Salle, Ill.:

Dear Madam—The services received from you and your associates during the past year have been exceedingly satisfactory, and I wish to take this opportunity to thank you and every member of your force for the promptness with which all our business dealings with you have been handled and the courteous treatment shown us at all times.

Wishing you all a Merry Christmas and a very Happy New Year, I beg to remain, very truly yours,

FRITZ WORM,
President.

Appreciation at Lancaster

The attached letter received by Manager Sprinkle at Lancaster shows appreciation of the service:

Lancaster, Ohio, Dec. 20, 1913.

Mr. Sprinkle,
Mgr. C. U. Telephone Co.,
Lancaster, Ohio.

Dear Sir:—

We hand you herewith eighteen packages of handkerchiefs and eleven orders for ladies' gloves. The handkerchiefs are for your local operators and the young ladies in the office, which we understand to be eighteen in number.

The eleven orders for gloves are for your chief operator, information operation, two supervisors, five toll and two night operators.

We tender these little tokens in appreciation of efficient service and courteous treatment.

Wishing you all a Merry Christmas and a Happy and Prosperous New Year, we remain
Yours very truly,

THE LANCASTER NITRO GLYCERINE Co.
By O. P. HINE, Mgr.

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Suburban Promotions

DECEMBER, 1913.

Aurora, A. Lindemeyer, operator to supervisor.

Harvey, N. Daley, operator to assistant chief operator.

Evanston, D. Udelhofen, assistant chief operator at Winnetka, to evening chief operator.

Winnetka, A. Fjellman, supervisor at Wilmette to assistant chief operator.

Gary, G. Lyons, clerk to supervisor.

Hammond, N. Carroll, operator to supervisor.

Hammond, M. Schultz, operator to night supervisor.

Elmhurst, M. Wrosch, operator to assistant chief operator.

The Honor Roll

The Honor Roll published in the January BELL TELEPHONE NEWS was not complete. In fact, there was an unfortunate omission of some very unusual records. We are glad to give them special notice in this number.

Margaret Conroy, West office, who has had perfect attendance for thirteen years and a half.

Agnes Leyden, West office, who has not lost a day in five years.

Miss Vath, West office, with four years' perfect attendance, and Myrtle Davison, West, with one year's perfect record.

Marie Clark, of Lincoln, who has not been absent one day in three years.

North and Lincoln Good Fellowship Party

A large company of North and Lincoln day operators, with invited guests from the general offices, enjoyed a dinner and social evening in the Main parlors, Thursday evening, January 22nd. The tables were gayly decorated with red carnations and favors, and when the bright caps were on the heads of about two hundred and fifty girls the effect was brilliant and quite in keeping with the spirit of the occasion.

After enjoying the dinner, the party adjourned to the ninth floor, where a number of humorous speeches were made by Mr. Foster, Mr. Cooper and others, Mr. Arnold acting as toastmaster.

A program followed, which was prepared and given by the girls themselves. Piano solos were played by Julia Johnson, Dorothy Ashley and Rose DeMuth. Vocal solos were rendered by Veronica McDonald, Charlotte Ricker and Ethel Shea. A quartet consisting of Misses Leinweber, DeMuth, Kraing and Holub, sang "Dream Days." Three entertaining recitations were given by Anna Pritchard, Lillian Rozendal and Elfrieda Kenge, and fancy dances by Misses Hodgson and Pritchard. An informal dance followed, and the party broke up about ten o'clock with a cheer for the "C. T. Company."

A Plant Department Surprise

A very enjoyable surprise party was given on January 21st at the home of Edward Eggert, 2746 West Madison street, by several employees of the Chicago Telephone Company. The party was planned by a few of his fellow workers in the plant department. Messrs. Edmund Walsh, Charles Minich and John Butler composed the committee, and certainly arranged everything to perfection, and were careful to see that all present enjoyed themselves.

Several telephone operators were present, representing various exchanges, the majority being from Kedzie and West exchange. Mr. Eggert was completely surprised, which added much to the fun of the occasion.

The company was entertained with several of the latest songs, by the Alpha Quartet, composed of Edmund Walsh, Charles Minich, John Butler and Edward Eggert. The rest of the evening was spent very pleasantly in playing games, etc.

Toll Good Fellowship Party

On Thursday evening, January 8th, the Toll Day force enjoyed a dinner and social evening in the parlors of the Main office. Two hundred and fifty girls with their guests sat down at 6:30 to dinner, and with the bell accompaniment and the cheers for special favorites in the office, together with the snapping of favors and blowing of whistles, it was a jolly company. The program, which followed the dinner, was preceded by some speeches by Mr. Foster, Mr. Cooper and others, Mr. Ham introducing the speakers. A very delightful program was given by the Toll girls. Miss Harrison played a violin solo; Miss McDonald and Miss Tipping sang a duet and Miss Kernaham gave a vocal solo and Miss Sterns a recitation. Fancy dances were given by Miss Sterns and Miss Alexander.

After the program, the Virginia reel was enjoyed by all the girls and other dancing completed an evening of great pleasure and sociability.

Personals

Marie Thomas, day operator at Kedzie exchange, resigned to enter the convent of the Sisters of Mercy, at Forty-ninth and Cottage Grove, January 17th. Miss Thomas has been with the Kedzie office four years, and has endeared herself to all the girls there by her lovely character and pleasant manner. The day operating force presented her with a silver watch, as a token of their love and good wishes for her in her chosen work as teacher in the convent school.

Members of Calumet day force, known as the "Bonita Girls," and their friends, enjoyed a pleasant evening at a tango party given on Friday evening, January 16th, at the Unity Club House. A large and happy company made the evening a complete success.

Weddings

On November 26th, William L. Collins, of the collection division, commercial department, was married to Eva Faehke. They were presented with a silver coffee and tea set by Mr. Collins' friends in the commercial department.

Celia Dwyer, who has been an employee of the commercial department for the last six years, was surprised with a shower given by Mae Connors, of the commercial department, at her residence, Saturday, November 22nd, and about twenty-five commercial girls were present. She received many beautiful presents.

Cupid crept into the commercial department and two of its employees are now one. George S. Waters, commercial agent, and Celia Dwyer were married November 26, 1913. Their friends in the commercial department presented them with an electric lamp and a water set.

Gertrude Schmidt, of Central office, and Arthur Wenk were married New Year's Eve. Four of the girls at Central office gave a shower in their honor November 11th. The house was tastefully decorated. A number of interesting games were played, and the bride to be received a number of beautiful gifts. All who were present enjoyed it immensely.

Ohio Division

B. T. Calaway, Correspondent,
Columbus

Chillicothe District

Florence Poling, former local operator at Lancaster, was married recently to Wade Terry of Lancaster.

Charles Hiles recently accepted a position as test man at Lancaster.

Frank Outcalt has taken a position as repairman at Lancaster.

Columbus District

The following private branch exchange contracts were received during December, 1913:

The Industrial Commission of Ohio, 1 switchboard, 3 trunks and 15 stations.

The Moore-Ross Milk Co., No. 2, 2 trunks and 5 stations.

The gain in stations at the Columbus exchange for December was 215. The gain for the year of 1913 was 1982, making a

total number of stations in Columbus on January 1st 21,798. The above was in spite of the severe flood in March which disorganized the work for a period of about three months and also caused a loss in Hilltop exchange, which was quite a handicap to overcome.

Eight millions in new building, for the year 1914, exclusive of residences, is the statement made by the Builder's Exchange secretary in the *Columbus Evening Dispatch* of January 4, 1914. This will mean a great deal to Columbus, and according to the secretary of the Builder's Exchange High street will undergo a complete change in appearance. A few of the larger buildings to be started this year are:

Deshler Hotel, N. W. cor. High and Broad streets; cost, \$1,000,000.

Z. L. White Store Bldg., eight stories, North High street.

Columbus Depot Company, Interurban Station, Rich and Front streets; cost, \$500,000.

High School Building, O. S. U. Campus; cost, \$500,000.

Athletic Club of Columbus, East Broad street; cost, \$350,000.

Elks' Lodge Building, East Broad and Fifth streets; cost, \$200,000.

Guarantee Title & Trust Building, East Broad street; cost, \$200,000, and thirty other buildings which will cost approximately \$5,000,000. The buildings will take telephones and the fact that so many new buildings are contemplated for this year makes the outlook for station gain look good. Also the spending of this money in the building trades will be felt favorably all over the city.

Helen Heller, formerly stenographer to the manager, surprised all her friends by her marriage to Mr. Stewart. December 22nd.

Grace Frank, formerly station clerk in Columbus exchange, and lately of the district accountant's office, was married January 7th to C. G. Williams, chief clerk to the plant superintendent in Cleveland.

Dayton District

Foreman Mann has just completed the installation of an eighty-line board for the Davis Sewing Machine Company, replacing a fifty-line board.

While unloading a reel of cable at the Davis plant, the reel fell, striking Installer C. Campbell on his left foot, breaking several small bones.

Foreman Darbyshire recently completed the installation of 4,000 feet of 400-pair cable on North Main street, Dayton. He has also just completed the installation of 7,000 feet of 600-pair cable in Dayton View.

Cable has been installed in the following apartment buildings: the Seminole, Miami, Stillwater, Mabala, Lockhart and Parkview.

The installation department has completed the installation of a 505-A cordless board with six stations in the Wayne Store, Dayton.

Foreman Apple, of the equipment department, recently completed the installation of a four-position, twenty-line special information desk at Main exchange, Dayton.

The Middletown Telephone Company made a net gain in subscribers for the year 1913 of 200. Work is progressing at the present time on the installation of a private branch exchange in the residence of Charles R. Hook. The system consists of one trunk and five stations. During 1913 eight private branch exchanges were installed at this exchange.

Helen Kuhns, evening chief operator at the East office, and Bernice Eckhart, operator, have been off duty for several weeks on account of sickness.

Lillian Caldwell, monitor at East office, has been off duty for the month on account of the illness of her mother.

Kathryn Fleming, operator at East office, has resigned on account of ill health.

The girls at the East office have organized a relief fund. Each month the proceeds are distributed among the worthy poor of the city.

The Jolly Bachelor Girls of the East office entertained with a dance on January 28th at Raider's Oak Street Academy.

Toledo District

Mattie Mathews has resigned as night operator of the Harpster Telephone Company at Harpster. The vacancy has been filled by Mayme Reigle.

Anna Shumaker of Carey has accepted the position of chief operator at the Carey Electric Telephone office to fill the vacancy made by the resignation of Win. Hoff.

Mabel Tuttle, clerk in the commercial department at Findlay, was transferred to the traffic department January 1st.

Bertha Norris, cashier at Bowling Green, has been confined to her home on account of illness.

Private branch exchange contracts have been taken with the following companies:

Grant Motor Company, Findlay, for one trunk and nine stations.

Huebner-Toledo Breweries Company, Toledo, for one trunk and four stations.

Buckeye Brewing Company, Toledo, for one trunk and five stations.

Crossed wires weren't mentioned by supervisors last night in the new telephone building on South Elizabeth street. The reason was evident: supervisors and regular "Hello Girls" were all busy—dancing. A telephone MAN did all the 'phone answering that was done. It was the housewarming of the new building, the first visible sign of the actual unification of the Lima and Bell companies in this city. One hundred and fifty couples glided over the big floor of the room in which in a few weeks the new instruments will be installed. There were a number of out-of-town guests, among them several visiting telephone men. The room in which the dance was held bore an entirely different appearance than it will in March. The event was in the nature of a combination holiday treat and housewarming, and this idea was carried out in the decorations. The color scheme was green and red, the Christmas colors, while the idea of the merger was expressed in the joined shield of the new company and the big Blue Bell of the old one done in electric lights. From green festoons and holly wreaths little electric lights peered and twinkled. The effect was attractive and artistic. Dancing began early and lasted until midnight. During the evening a delightful luncheon was served. The arrangements were taken care of by Manager G. H. Metheany.—*Gazette*, Lima, Ohio, December 18, 1913.

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Indiana Bell Telephone Society

The Indiana Bell Telephone Society met at the University Club at the usual hour on December 30th. After an informal dinner, W. R. Hirst read the paper of the evening, the subject being "Plant Accounting." Mr. Hirst very clearly brought out the importance of extreme care on the part of managers in the routine work numbers to which they charge the various items of their work, as the showing which an exchange may make can be very materially affected by charges to property accounts of expenditures which are properly chargeable to expenses, or where work is charged to expense when it would be properly chargeable to property accounts. Mr. Hirst's paper was interrupted by various members from time to time by questions in which they were particularly interested.

After the paper was discussed, President Frank Wampler being in somewhat of a reminiscent mood, decided that it was so nearly the end of the year that we could properly take a little time to give vent to the real feelings and called upon each individual member present to give an account of himself and his work during the past year and further to explain in detail a justification for drawing his salary. No doubt this was rather embarrassing to some, but they all responded with some sort of an explanation.

Mr. Wampler recalled the time when some fifteen years ago he was sent to Gas City to discharge the local manager at that place and almost lost his job for not doing so. He then called upon that former manager, who is the present district plant chief, Mr. McMaster of Indianapolis. He also recalled going to Marion, representing former Superintendent John R. Corcoran, and met a very affable young chap who was at that time wire chief at Marion, and he then called on James E. Carver of the plant department, who is the said chap, to give an account of himself. He then recalled that he had helped to discover a healthy looking young fellow down at Greensburg at the post office and decided to put him in as manager at the Greensburg exchange. He then called on C. M. Nesbitt, who was the party referred to. He went on calling on the various old timers and it developed that there was only one man present who had been with the company longer than Mr. Wampler. This man was Construction Superintendent W. B. Thomas.

Where Was Henry?

C. A. Cora, special agent in the commercial superintendent's office, has made himself famous. He entered the Indianapolis Bowling League tournament, expecting probably to make a fair showing, but he showed them a thing or two by carrying off the first prize

in the single-man contest with 649 pins to his credit for the three games. He and A. R. Henry, division cashier, also entered the two-man team contest and came out sixth.

Division Offices

William H. Gallagher, Northern District service inspector, was married January 7th to Claire A. Prosser, of Vincennes. The ceremony was performed at the historic old St. Frances Xavier church, the oldest church in Indiana. Mr. and Mrs. Gallagher will reside in Indianapolis.

The repairs and overhauling in connection with the toll-line system in Indiana planned for 1913 has all been done, and Plant Superintendent Hirst reports the toll-line system in this state in the best condition that it has ever been.

The revenue for 1913 ran within one per cent. of the estimate made when the budget was made up for the state at the end of 1912. The station gain was about 3,400 as against an estimate of 4,000. Business depression caused the loss of a few hundred in Muncie and the flood likewise lost the Peru exchange a considerable number. Indianapolis, however, did somewhat better than was expected.

C. C. Mason, service inspector, has been appointed chief clerk in the district traffic chief's office, succeeding W. C. Shepard, who resigned to go to Montana.

Nora Thurston, traveling chief operator of the Peru district, has been taking a well-deserved vacation.

Central District

A private branch exchange of two trunks and fifty-three terminals has been installed at the Oxford Hotel, 117½ South Illinois street, Indianapolis.

A private branch exchange of five trunks and twenty-two terminals has been installed for Kingan & Company, Limited, Indianapolis.

Dr. W. H. Foreman, 676 Hume-Mansur Building, has installed a private branch exchange of one trunk and five terminals.

Nora Thurston, traveling chief operator, has been a guest of Mrs. Nettie Sturgeon, toll supervisor, at Indianapolis. A number of theater parties were given in her honor, and Mrs. Sturgeon gave a six o'clock dinner.

Work at Indianapolis in connection with additions to the Main switchboard, Circle board and various branch offices, has been practically completed.

Construction Superintendent W. B. Thomas is very much elated over the results of the work under a large construction program for the state for the year 1913. He says that never in his experience has as much work been accomplished with the number of men employed as has been done at Indianapolis during the past year. Conditions have been such that the work has not been interrupted, and the men in all his forces have done exceptionally good work.

Practically ninety-five per cent. of all of the plant work under estimates approved for 1913 for additional facilities at Indianapolis, is done and the facilities are now available for use by the commercial department in taking care of new business.

Plant Superintendent W. R. Hirst reports that practically all outside construction work in Indiana under estimates approved for 1913, except the work at Bloomington, will be finished by March 1st.

A new forty-eight volt battery will be installed at Indianapolis Main exchange. Work will be done by the equipment superintendent.

The Sanborn Electric Company, Indianapolis, has installed a private branch exchange of two trunks and seven terminals.

The Indianapolis traffic department observed the holiday season by extensively decorating the rest rooms of the different offices. Christmas greens, red bells, and the beautiful flowers—the poinsettias, were used. The North, Prospect, and Woodruff offices further entertained their respective operators with beautiful Christmas trees and a general exchange of gifts. A feature of these entertainments was a treat of ice cream and cake by the matrons and chief operators to all of their operators. A feature of the entertainment at the Woodruff office, not down on the program, was the scampering into lockers, dragging out of head-sets, and hurrying into the operating room, where in a minute every position was covered to take care of the lights showing up on the board, caused by the public's anxiety and curiosity to know about a fire which broke out at the time. In a moment the crowd of singing and merry-making girls was changed into earnest, attentive telephone operators, answering calls and attending to business. After the rush of traffic had subsided the girls returned to the rest room, where the evening's entertainment was concluded, and where a real Santa Claus distributed the gifts.

Several of the girls at the Main office gave a theater party at the Murat Friday evening, January 9th.

Edith Small, Catherine Collier, and Ethel Hadley, operators at the North office, were promoted to positions of supervisors.

May Sherman, North office repair clerk, entertained a number of the North office employees Wednesday evening, December 31st. The evening was spent in music and games, and refreshments were served at midnight.

Myra Lovinger, Main office operator, entertained a number of the Main office employees at her home on New Year's eve.

Northern District

Fort Wayne operators were entertained at a watch party New Year's eve at the home of Julia Rentschler, toll operator. The evening was spent in music and games and, after a dainty luncheon was served, the girls left for their homes while bells and whistles were ushering in the New Year.

A most enjoyable time was enjoyed by the employees at the Kendallville office on Christmas Eve, when, instead of exchanging presents, it was decided to have a "grab bag." Many pretty and useful presents were received, and a most enjoyable evening was spent by all. The most exciting moments during the affair were when the chief operator received a very pretty ring, set with sardonyx, a present from the girls.

The employees of Muncie office furnished gifts, candy and nuts for fifty children on Christmas day. They also made up several baskets for the poor. Mr. Post let the girls have the company's wagon to distribute their gifts.

Manager Edgar T. Bonds performed the happy duties of Santa Claus at a Christmas tree party given for the office staff in the Central Union Telephone building at South Bend on Wednesday afternoon, December 24th. Mr. Bonds put over the part admirably in spite of the fact that he dispensed with the conventional but highly inflammable whiskers and cotton batting eyebrows. Prior to distributing the presents Mr. Bonds said: "At some time or other during the year you all have wished for some particular thing—something that you greatly coveted, but did not expect to receive. Well, here you are," whereupon he proceeded to distribute the gifts. And gifts they were, ranging from a box full of excelsior and good wishes to a completely stocked grocery store ready for holiday trade.

Martha Sedgwick has been appointed chief operator at Shelbyville.

Cecil Zeek, chief operator for several years at Gas City, has resigned to be married early in January to Charles Bruson, of Morgantown, W. Va. On Friday evening, December 26th, Miss Zeek gave a party to the Central Union girls, at which time she surprised them by the announcement of her coming marriage. On Monday evening, December 29th, Stella Brogan, a former Central Union operator, gave a silver shower for Miss Zeek. The evening was spent in dancing, games and music. All reported a fine time. Miss Zeek was presented with many beautiful and useful presents.

Helen Kaltenbach, toll operator, has been promoted to the place of chief operator at Gas City. Helen Brogan, local operator, was promoted to toll operator, succeeding Miss Kaltenbach, and Elizabeth Roberts takes the place of Miss Brogan.

Helen Kaltenbach, toll operator at Gas City, spent Christmas with her parents in Arcadia, Ind.

Weldon Reasoner has taken a position as lineman at Gas City.

A Christmas gift to Shelbyville operators was accompanied by the following: "Com-

pliments of J. G. De Prez Company to the 'Hello Girls' of the Shelbyville Telephone Company, for their good, polite and prompt service."

Daisy Osman, senior toll operator at Elwood, resigned January 9th to become the bride of Robert H. Haskell, recently from South Bend, who came to Elwood to act as special testman during consolidation of the exchanges. Mr. Haskell secured a position as toll wire chief with the A. T. & T. Co., at St. Louis, Mo., for which place he left with his bride after the wedding—with the assistance of friends, who were well provided with rice and cards to insure that the newly-weds should receive proper attention on the way.

Orpha Stoffer, toll operator at Auburn, has resigned and is succeeded by Lottie Reynearson, formerly local operator.

Manager Springer at Muncie has moved into his new commercial office on the first floor of the Traction Terminal Building. The former commercial quarters will be occupied by the traffic department. The new office is in a very accessible location, having two sides facing the streets and also an opening into the public waiting room of the terminal station. The public pay station and booths will be conveniently located on one side of the room, the cashier's cage, contract department and the manager's office on the other side, convenient to the public. The new arrangement will afford much better facilities for taking care of the increased business which has resulted from the consolidation of the Central Union plant with that of the D. & M. Company.

Manager A. B. Porter of Elwood is very proud of his new office in the quarters formerly occupied by the exchange of the D. & M. Company. In front will be the public pay station and booth with counter and cashier's cage, both convenient to the public. With the operating department on the second floor it will make an ideal arrangement. The plant department has added an addition to the rear of the building for store room purposes, making the exchange quarters complete in every respect.

Special line and instruments have been furnished for a special Morse service at Muncie by the International Press Association for the *Muncie Evening Press*.

A special P. N. T. loop has been supplied to the *Shelbyville Republican*.

W. G. Stedman, commercial agent at South Bend, took 1,182 exchange contracts during 1913 at South Bend, with a total increase in annual exchange revenue of \$25,667.

District Commercial Manager C. M. Nesbitt is in receipt of a letter from J. W. Scott, general manager of the Commercial Telephone Company at Warsaw, in which Mr. Scott reviews his year's business with a great deal of pleasure at the results shown. He expresses his sincere appreciation of his business relations with the Central Union Telephone Company since the toll lines were cut into his board the first of the year.

Southern District

The Bell Telephone Society of Terre Haute, Ind., after a spirited election, chose the following officers for the ensuing term: President, H. A. Irmingier; vice president, Ivan Halstead; secretary, W. A. Shaw; treasurer, Alvin Vanell; sergeant-at-arms, C. E. Chambers; house committee, Alvin Vanell, M. J. Dease, Ira Humphreys, Olie Stewart, H. A. Irmingier. Reports showed the club to be flourishing, membership thirty-seven. After the business session, the members present were given a very entertaining and instructive lecture entitled "Our Most Democratic Institution—The Telephone." During the course of the lecture, which was given by Manager F. H. Kissling, views illustrating

the different points of it were thrown on a screen. The society has recently purchased a Radioticon machine for throwing magnified images of circuit drawings, diagrams, etc., upon a screen, and it will be used hereafter in the discussions on telephone development.

Christmas offerings of Bedford employees were turned over to the Salvation Army for distribution to the poor.

Ethel Chambers returned to her duties at Bloomington after a two weeks' illness with measles.

On New Year's Eve the Greenwood employees entertained as their guests in the exchange rooms their immediate families and a few out-of-town representatives of the company. The entire party numbered about thirty. During the day busy hands had transformed the entire suite of five rooms and two large hallways with holiday attire. The color scheme worked out in the manager's office and improvised dining room was blue and white, while green and red sprinkled with sprigs of cedar predominated in the other rooms. In the hurry and joy of the holiday spirit, the business of the office was in no wise neglected, and all calls were answered promptly, as usual. By 9:30 p. m. all things were in readiness for the banquet. F. D. Fee, the local manager, was given the place of honor at the head of the table, and acted as toastmaster of the evening. He took advantage of the opportunity thus afforded him to thank the employees for their faithful cooperation during 1913. Mr. Fee also read several letters from patrons expressing their appreciation of the prompt and courteous service rendered them during the past year. The table presented a beautiful sight with its snow-white cloth sparkling with silverware, china and cut-glass, enlivened with three beautiful begonias, and a Killarney rose at each plate. Each napkin was decorated with a tiny bell. An elegant three-course repast was served. The feast was not concluded until after the old year had gone and 1914 had become a reality. The compliments of the season were passed, each one wishing for the other a happy and prosperous New Year. The out-of-town guests were Emeline Taylor of Banta, Ind.; Mrs. B. F. Nesbitt of Vincennes, and the following from the Indianapolis office: Mr. Whitham of the commercial department; Mr. Leach of the plant department, and Mr. Gallagher of the traffic department.

Lulu Gregory has been appointed chief operator at Washington.

Katherine Smith has been appointed service observer at Terre Haute.

A special terminal loop has recently been installed in the office of E. W. Wagner & Company, brokers, at their offices in Huntington and Lafayette. A similar terminal loop has been installed in Mudlavia Hotel at Attica for the firm of Thompson & McKinnon, brokers, also in the office of Paul Lambert & Company at Lafayette.

Cleveland Division.

W. K. Lawrence, Correspondent.

Who Got It?

A Christmas card was received at the Cleveland traffic department addressed, "To the Bell Telephone Operator With the Sweetest Disposition in Cleveland, Ohio."

With Commercial Agents

A contract for a private branch exchange which will consist of a No. 4 switchboard,

TELEPHONE WIRES

ENAMEL,
SILK,
COTTON,

Magnet Wire

PROMPT DELIVERIES

ROME WIRE COMPANY

ROME, N. Y.



RELIABLE CABLE HANGERS

AND

COPPER WIRE CONNECTORS

For Telephone and Electric Wires

All sizes from No. 0000 to No. 19 gauge

Split and Combination sizes

Write for Samples and Prices

RELIABLE ELECTRIC CO., CHICAGO



three trunk lines and eight stations, was secured from the Oppenheim-Collins Company, 1020 Euclid avenue, by G. V. Shaw.

Through the efforts of I. W. McKee a contract for a private branch exchange was secured from Howell-Roberts and Duncan, 960 Leader-News Building. The equipment will consist of a No. 4 switchboard, two trunk lines and six stations.

N. J. Forgue secured a contract for a private branch exchange which will consist of a cordless switchboard, one trunk line and six stations from the City Foundry Company, 4629 Hamilton avenue.

Showing of Bell Club at Mercantile League Banquet

The Bell Club of the Mercantile League made quite a showing at the banquet held December 19th at the Central Y. W. C. A. Over fifty of our girls attended, making ours the largest delegation present. Our club song and yell were among the best, and each girl joined heartily in making it so.

After dinner a Christmas play was given by the Dramatic Class and a drill by the Gymnasium Class, which were thoroughly enjoyed by everyone present. The remainder of the evening was spent in dancing, singing and having a general good time.

Class work done during the past year deserves highest praise and the girls have every reason to feel proud of the work they were able to display.

The new term began January 5th and from the way things have gotten under way so far this year will be a banner year.

Personals

Blanche Cormela, operator at Eddy office, has been promoted to clerk at Eddy.

Helen Utermark, operator at Main, has been promoted to supervisor.

Miss McDonald, former night chief operator at Eddy office, has been transferred to Main. Louise Resch will take the place of Miss McDonald at Eddy.

Minnie Salzer, Lelah Walters and Minnie Marsale, operators at Main, have been promoted to supervisors.

Has the high cost of living had any effect on the price of diamonds? Why is December 25th the day which brings happiness and good cheer? Do Bell Telephone operators

make good housewives? Before answering these questions, please get in touch with the young men who presented diamond rings to the girls, whose names appear below:

Edith Perry, Effie Ball, Ethel Reinhart, Grace Commer, Agnes Stapleton and Margaret Long of the Main office.

Nellie Jenks and Anna Prell, instructors in the school.

Florence McGraw and May Kennedy of the Ridge office.

Florence Fuller of the Eddy office.

Miss Bergenstein of the South office.

Katherine Casey, chief operator at Marlo office, was awarded a prize for being one of the best dressed ladies at the Circle of Mercy ball, held at the Statler Hotel. She was gowned in white lace over blue satin. Miss Casey was formerly chief operator at West office.

H. H. Driggs is taking Mr. Felch's place as evening traffic manager, Mr. Felch having been transferred to Mr. Brady's office.

Record of Order Department

The order department under the supervision of Thomas L. Finneren made great progress last year. The routine system in effect previous to February, 1912, has been changed entirely, with the result that more orders are now written with a reduction in the force. As a whole the routine established and now in effect has developed and increased the efficiency to the extent that quick and accurate detailed information is attainable at all times.

The following shows the number of orders written during the year 1913, as compared with 1912:

	1912	1913
January	5,268	5,120
February	5,644	6,125
March	5,073	5,376
April	5,006	5,895
May	5,333	6,221
June	4,802	5,875
July	5,152	5,463
August	4,185	4,371
September	4,778	5,236
October	6,468	7,980
November	4,640	6,122
December	3,996	5,016

60,345 68,800
Increase in orders written during 1913, 8,455.

Wisconsin Division

H. J. Bendinger, Correspondent,
Milwaukee

Commercial Department Outing

On December 10th, 1913, the commercial department of the Milwaukee district held an "outing" at Keiper's Park (Brown Deer), which was participated in by all members.

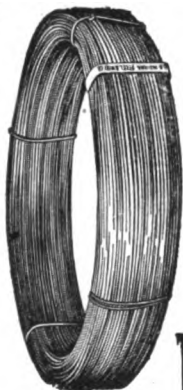
The entire party, numbering about fifty, boarded a Milwaukee-Northern Interurban car at 5:30, and rode out to the Park, where covers were laid for a sumptuous feast. Coming at the end of a hard day's work, the spread was more than welcome, and everybody indulged in a hearty meal. At each plate had been laid a folder containing some of the up-to-date songs, and when the inner man had been well satisfied, Mr. Stelzel, who acted as toast-master, requested that all participate in a little "harmonious co-operation." This resulted in the rendition—BEAUTIFUL rendition—of the popular airs which delight everybody at this time, and surely revealed some extraordinarily good voices in the commercial department (provided they were properly trained).

After the songs were sung, and everybody had declared that everybody else was "a jolly good fellow," Mr. McEniry, commercial superintendent, was called upon for a few remarks. He declared that he was "glad" to have been invited (so was everybody else), and after telling a few appropriate stories, he expressed his satisfaction with the results secured during the past year. George C. French, district commercial manager, also spoke of the good work accomplished, and furnished some excellent advice for future work. In addition to these, Mr. Bendinger, Mr. Schilling and Mr. Bell related some of their experiences while with the company.

Some more songs were sung, and then Mr. Stelzel stated that "Old St. Nick" had agreed to distribute a few presents, even though the time was a little previous, because it was the jolly Yuletide season of the year and some had merited an early gift. Santa was ushered in, carrying a miniature Christmas tree in one hand, and holding on to a somewhat burdensome bag with the other. After delivering a few timely remarks, he began to dis-

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.



Write for FREE SAMPLE
Make Test and Comparison



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



The "Dreadnaught"
Brazed Steel
Gasoline Blow Torch

Made to deliver the Hottest Fire and to withstand the Hardest Knocks and has made good and stood the service test of the Telephone Companies.

No soft Solder to melt or crack. Large Pump, quick starting Burner.

Convenient Filler service.

Let us quote you.

The P. Wall Mfg.
Supply Co.
PITTSBURGH, PENNA.

tribute the presents, insisting, in each case, that the recipient step forward to receive his gift. This was an excellent opportunity for the "bunch," who in all cases cried, "Speech! speech!"

There was an automobile license for Mr. McEniry, giving him the privilege to run his car on the streets of Milwaukee as he chose, disregarding entirely the speed limit, or whomever he might run over. To Mr. French was handed a "magic horn" to be sent to those managers in the district who failed to blow up to their estimated gains. Mr. Bendinger was given a bottle of his favorite drink, Salvator beer, "made in Germany." Mr. Dougherty was the recipient of a steel file to be used in a new filing system for follow-up letters. Many others received presents from good old Santa Claus, after which the entire party repaired to the bowling alleys and lined up in an eight team contest for the rest of the evening.

Prizes were awarded to the winners, and at 11:30 all took a special car for home, declaring that they had enjoyed themselves and would not soon forget the excellent spirit with which everybody entered into the fun of the evening.

A Holiday Appreciation

Following is a Christmas letter from the Fremont (connecting) Telephone Company: Mr. J. T. Quinlan, District Manager, Wisconsin Telephone Company, Appleton, Wis.

Dear Sir:—In wishing you and your office force the compliments of the season we do not think it out of place to congratulate both you and the operators on the manner in which the long distance business that we have through there is handled; it is always prompt, efficient and courteous.

We wish that you would kindly extend this to those directly in charge of the traffic. Yours very truly,

W. M. E. SHERBURNE, President.
W. A. MCINTYRE, Vice President.
Geo. F. DOBBINS, Manager.

Appleton District

Operators in the various exchanges of the Appleton district were well remembered on Christmas. Appleton operators received gifts of candy and perfume from a number of subscribers. Several Depere subscribers also re-

membered the operators with gifts and candy. The Green Bay operators received flowers from Carl Meyer, a florist. Each operator at Kaukauna received \$5 from one subscriber and \$2.50 from another. The chief operator received one gift of \$10. The Manitowoc operators received numerous Christmas remembrances consisting of candy, handkerchiefs, books and other things in appreciation of the good service they have given. The Fond du Lac operators received fifty pounds of candy, eighteen bar pins and twenty-four sets of beauty pins. The chief operator received a bottle of perfume. North Fond du Lac subscribers sent candy, toilet water and other gifts. The chief operator at Neenah received \$5 and each operator \$2 from one subscriber. Oranges, candy, handkerchiefs and neckties were also received. New London operators received candy and stationery. Oconto girls were remembered with gifts of holly and mistletoe. Five Oshkosh local operators received \$5 each from a subscriber. Many other gifts were also received by the Oshkosh girls. Shawano operators were generously remembered by prominent subscribers. Operators at Princeton, Red Granite and Green Lake were remembered with gifts of candy, plates, dishes, handkerchiefs and fruits. Sturgeon Bay girls received a box of candy three feet long, fourteen inches wide and three inches deep from one subscriber. Several other subscribers sent smaller boxes for all the girls. Omro girls received candy. Almost all of the gifts received at all exchanges were accompanied by letters of appreciation for good telephone service rendered during the year.

The Appleton operators were entertained December 11th at the Appleton Theater by the Jack Bessey Stock Company.

The Twelve Corners and Mackville Telephone Company, connected with the Appleton exchange, has added three circuits and thirty stations.

G. R. Lyman, wire chief at Appleton, spent a two weeks' vacation in New York state.

W. J. Love and J. R. Crosdale have completed additions to battery equipment installed to take care of new switchboard facilities about to be added. These include 660 answering jacks, 900 multiple and sixteen peg-count registers. This equipment is planned to provide for the development in Fond du Lac until the end of 1916, when it is estimated the exchange will have 4,400 stations and 2,700 lines.

A horse accidentally stepped on the foot of Groundman Gelse, at Green Bay, and the painful injury resulting laid him up for a number of days.

Manager H. F. Bornheimer at Marinette secured a contract for a cordless private branch exchange of one trunk and four stations for Gitchell and Innes, a wholesale grocery house. The board was installed January 20th.

Elizabeth Challoner, night operator at Omro, resigned to be married to Charles Lawson of Bone Lake, Wis. Mr. and Mrs. Lawson will reside at Bone Lake.

The Oshkosh exchange made its estimated gain in subscribers, 380, for 1913.

C. H. Monahan has accepted a position as commercial agent at the Oshkosh exchange.

H. Deuster, foreman for the Appleton District, has just completed 200 feet of underground conduit on Washington street, Oshkosh. This runs into the new office building now in the course of construction by the Fraternal Reserve Association.

Daisy Briggs, local operator at Oshkosh, has resigned. She will be married to Harry Oates.

The Gillett Rural Telephone Company, connected at the Shawano exchange, purchased a number of miles of line from the Linzy Brook Telephone Company, which included all of the pole line and wire line in the village of Gillett, the town of Gillett and the town of Underhill. The Gillett Company now has a total of 228 telephones.

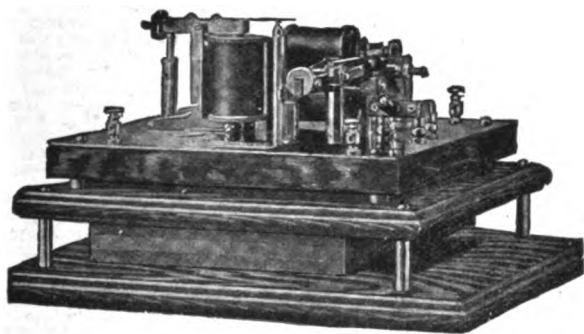
Ed. Ledvina, manager at Shawano, was married to Emma Kawalski, of Shawano, on November 26th.

Wesley Long, lineman at the Sturgeon Bay exchange, spent two days at Fish Creek placing cross arms on our Sturgeon Bay and Fish Creek toll lead to make room for the State Park line. The State of Wisconsin has a crew of men at work under Mr. Doolittle, superintendent of the State Park, constructing about sixteen miles of line throughout the park. This line will connect with the Wisconsin Telephone Company toll lines at Fish Creek.

Eau Claire District

D. U. Parkinson has succeeded W. F. Hallfrisch as manager at Ashland. Mr. Hallfrisch has been transferred to Superior.

Oscar Peterson, lineman at Menomonie, and Maud Reynolds, chief operator at Glen-



THE STANDARD POLE CHANGER

has been making good for seventeen years. Affords the cheapest power—about 25c for each 100 subscribers. Very simple in construction—practically indestructible—no parts to wear out.

17,000 now in use.

No current drawn from dry cells except when ringing subscribers.

You run no risk—every pole changer guaranteed. The standard is one of many designs we manufacture. Tell us number of subscribers you have and we will send you details of the particular pole changer best adapted to your needs.

WARNER ELECTRIC CO., MUNCIE, IND.



100 Mack Trucks

In Actual Service of **TELEGRAPH** and **TELEPHONE COMPANIES** Alone is the Mack's Surpassing Record.

Bell Telephone Co. of Pennsylvania
Chesapeake & Potomac Telephone Co.
Chicago Telephone Co.
Pacific Telegraph & Telephone Co.
Southern New England Telephone Co.
New York Telephone Co.

A few big users of Mack Trucks in a single industry.

International Motor Trucks
TRIUMPH OVER EVERY COMMERCIAL OBSTACLE

Mack and Saurer
TRUCKS FOR EVERY PURPOSE

International Motor Company
General Offices: Broadway and 57th St., NEW YORK



TELEPHONE OPERATORS

and Stenographers

Save Your Clothes

By wearing our new Ideal

Circular Skirt

Apron

REASONS WHY

*Entire length covering skirt.
It fits perfectly in back, fasten-
ing down side as in illustration.*

Some day you will wear one,
why not now?

Made of good quality black

sateen. Any waist measure to order.

Stock sizes 22 to 30 in. for immediate delivery by Parcel Post,
75c prepaid, anywhere in U. S. or Canada.

Extra Offer—12 Carmen Hair Nets, 1 Circular Skirt Apron, for \$1.00.

MAIL YOUR ORDER TODAY

WANTED

Women Demonstrators in every office in Michigan, Wisconsin,
Indiana and Illinois, to take orders. Good money made during
spare hours. Write for sample enclosing price of apron.

CHAS. SCHIFF

423-25 W. 63rd St.

Chicago, Ill.

Some Drill Set!

The Star Drill Set comprises six drills
and a holder made of the best tempered
steel.

The STAR

The drills are made in the following
sizes: 1/4", 9/32", 19/64", 5/16",
3/8", 13/32", 27/64", 7/16",
1/2", 5/8", 3/4".

When order-
ing a set it is well
to name the sizes
required.

The Star Drill Set is 'used and
preferred by up-to-date workmen be-
cause of its compactness and durability.

STAR EXPANSION BOLT CO.

147 Cedar Street

NEW YORK

wood, were married at Glenwood, December 20th. After a wedding supper they left for Menomoneie, where they will reside.

Florence Bird, night operator at Menomoneie, entertained the traffic department at an oyster supper, December 23rd.

George P. Thompson, Morse operator at Menomoneie, has returned after a week's vacation.

Mabel Glese, formerly operator at Menomoneie, was married to William Dahms on January 1st.

The Menomoneie operators were well remembered with numerous gifts from the subscribers in appreciation of service rendered the past year.

Cupid has again entered the Menomoneie office, as the assistant chief operator has been seen lately with an "eye dazzler" on her left hand.

E. P. Kelley, manager at Hudson, spent Christmas week at his home in Stevens Point, Wis.

Allice Haag, of Emmetburg, Iowa, who has been Morse operator at Hudson joint office for the past year, resigned December 20th to be married. She is succeeded by Lillian Dreyer, formerly Morse operator of the Plankinton House, Milwaukee.

Wallace Anderson has been transferred from Duluth to fill the position of wire chief at Chippewa Falls.

Ruth Ermatfinger has been added to the local operating force at Chippewa Falls in place of Ellen Young, who has gone to Zion City, Ill.

The Chippewa Falls operators were remembered on Christmas time by a number of local merchants with candy.

Lena Scheidler has been added to the local operating force at Chippewa Falls, filling the vacancy caused by the resignation of Myrtle Payson, who was married to Fred Grendahl December 30th. Mr. and Mrs. Grendahl will make their home at Draper.

Miss W. E. Kern has resigned her position at Chippewa Falls and has gone south for the winter.

The operators at the Ashland exchange decorated the operating room with bunting and vines, with a large blue bell hanging from the center, which gave the operating room a Christmas-like appearance, and was cheerful to those on duty during Christmas day.

About fifty pounds of fine candy, nuts and fruit were given the Ashland operators as a remembrance from the patrons for the ex-

cellent service given them during the past year.

Mary Seidler, chief operator at Stevens Point, has returned after a week's vacation spent at home.

A very enjoyable social affair took place Thursday evening, January 8th, when Buelah Neumann entertained the girls of the Stevens Point exchange at her home on Division street. The girls gathered at the office about 9 p. m. and went in a body to Miss Neumann's home. The evening was spent playing various games, singing and dancing. About 11:30 dainty refreshments were served.

The Eau Claire operators were remembered at Christmas by many appreciative subscribers.

Amanda Hansen, chief operator at Eau Claire, spent Christmas at her home in the southern part of the state.

During the past month J. E. Bonell, manager at Eau Claire, secured a contract from the Eau Claire House for a sixty-station private branch exchange. Work on installation will start about February 1st.

During the past month C. N. Culbertson, wire chief at Eau Claire, has completed the installation of a forty-four station private branch exchange in the Galloway House.

During the past month J. E. Bonell, manager at Eau Claire, visited a number of the connecting companies in his district and reports the following changes and improvements made by the different companies: The Mondovi Telephone Company at Mondovi has just completed extension of present cable plant, installing considerable 100, 200 and 300-pair cable. The company has also moved into its new modern office building and installed new central office equipment as well as a new two-position switchboard. All of the equipment as well as the switchboard is of the latest design and will take care of the future growth for some years to come. The Eleva Farmers Telephone Company at Eleva, Wis., has just completed the installation of a number of additional drops and jacks to take care of increasing business. The Central Wisconsin Telephone Company at Black River Falls, Wis., has completely rearranged its offices and rebuilt the present exchange building. Considerable new equipment has also been installed as well as cable throughout the entire city. The Strum Telephone Company of Strum, Wis., has just moved into a new one

story and basement solid brick exchange building. During the past year considerable outside construction work has been done. The Elk Mound Telephone Company at Elk Mound, Wis., has just completed the rearrangement of the office building, and as this company cabled all lines in the city of Elk Mound during the year 1913, the plant is now completely up to date in every detail. The Ludington Telephone Company at Elk Mound, Wis., has during the past year completed the rebuilding of pole and aerial wire lines both in and around Elk Mound. The plant now being in first class shape. No work was done in central office equipment as this was installed but a few years ago and has been kept in first-class shape. The Badger State Telephone Company, at Neillsville, Wis., has done considerable rebuilding on rural circuits as well as adding to them. This is a common battery-exchange occupying very fine quarters in a modern office building.

The new addition to the Eau Claire exchange building has been completed, and the district force is now installed.

J. O. Straub, manager at Bayfield, has been transferred to Stevens Point. A. L. Willmot, repairman, formerly at Ladysmith, has been appointed manager succeeding Mr. Straub. Herman Rambow succeeds Mr. Willmot.

A large number of gifts were presented to the operators of the Bayfield exchange on Christmas evening by their many friends, the subscribers.

Grace Reed, Morse operator at Ladysmith, spent Christmas with her folks at Kenosha. Ralph Kromroy from Eau Claire attended to the Morse work at Ladysmith during Miss Reed's absence.

Janesville District

Mrs. John Hevey, formerly bookkeeper in the Beloit office, resigned January 1st and will join her husband in Ohio. Blanch Murray takes the vacancy.

Helen Schendel, operator at Beloit, has been promoted to toll operator, succeeding Blanch Murray, transferred to the commercial department.

Agnes Cunningham has been employed as toll operator at Beloit, succeeding Myrtle Dolan, resigned.

Additional cable facilities have been

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

GOOD TELEPHONES SERVICE



Western Electric

No. 1317 Telephones

are telephones that give a maximum of service with a minimum of up-keep expense.

Small up-keep expense means better service and more profits—features which should mean much to your friends in your territory.

They look to you for advice—bring home these facts to them.



authorized for Beloit. The Western Electric Company is also enlarging the local switchboard at Beloit.

S. L. Walley, lineman at Beloit, suffered a fracture of one of the bones in his foot by falling from a ladder.

Work on enlarging the cable plant at Beloit, under Foreman B. Hansen, is progressing nicely and this work will be completed about the last of March.

Madison District

The Baraboo operators and office force were the recipients of a great many gifts from the telephone subscribers of Baraboo and vicinity for Christmas. Never before has there been such appreciation of good telephone service shown at Christmas time.

Edna Dollard, Baraboo toll operator, has been sick for several weeks.

Alice Keish, night toll operator at Baraboo, spent Christmas at her home in Alma Center.

Manager Quale, of Baraboo, is looking forward to the month of June with anxiety. This thought became prevalent in Mr. Quale's mind on Christmas morn when he walked into the operating room and was met with the glittering, dazzling array of diamonds on the hands of the young ladies.

The Baraboo employees have adopted a motto as follows:

"Get the business,
Give good service,
Get the money."

District wire chief F. J. Brewer and family spent Christmas at Chicago visiting relatives.

Ollie Johnson, stenographer at the district office, spent Christmas at Orfordville, Wis.

John A. Johnson, former assistant wire chief at Madison exchange, has returned from Los Angeles, Cal., much improved in health.

The young ladies employed at the Stoughton exchange enjoyed a pleasant New Year's party at the exchange on New Year's eve. Refreshments were served from the Stoughton news stand, and the evening was passed in games. It was decided to hold a similar party once a month.

Manager Smiley, of Stoughton, and family, spent New Year's at Orfordville, Wis.

Subscribers at Horicon showed their appreciation of the good service they had enjoyed during the year by presenting the operators on New Year's with two-and-one-half dollar

gold pieces each, and an additional five dollars for confections.

The operators of the Columbus exchange were very kindly remembered by professional and business men of the city at Christmas time. Each one received a very acceptable gift as a reminder from the donors that the service is appreciated.

Work on the new private exchange at W. D. Hoard and Sons' office at Ft. Atkinson was completed on December 26th.

The operators at Ft. Atkinson were very kindly remembered by a great many of the subscribers on Christmas day.

Marie Clow, former Morse operator at Ft. Atkinson, resigned about six weeks ago, on account of severe illness. She is recovering.

Operators at Jefferson were recipients of many presents from the patrons, such as candy, jewelry, handkerchiefs, etc., at Christmas time.

On New Year's Eve the operators at Jefferson tendered themselves a spread, which was enjoyed by all those who took part. This was the first attempt and will not be the last, but the operators were sorry that their chief operator could not be present.

John Sherer, frameman at Madison, has recently resigned to engage in electrical work for himself. He is succeeded by Horace Tenney.

George Scherer, installer at Madison, has resigned to engage in electrical work for himself, and he is succeeded by Henry Testal, formerly installer at Janesville.

A new agricultural chemistry building at the University of Wisconsin is now nearing completion. Fifteen telephones are being installed in this building, connected to the present University of Wisconsin private branch switchboard.

The Madison exchange has broken all previous records, making a net gain in stations of 275 for the month of October, and ninety-five during the month of November.

A district meeting of all the managers, chief operators and clerks was held at the court house at Madison on December 16th. The object of the meeting was to discuss centralized accounting, which was taken up at all the exchanges on January 1st.

The following orders were taken for private branch exchanges in Madison during December:

Denmark Construction Co., Washington Building, No. 4 board and 9 stations.
Bagley & Reed, Lawyers, First National

Bank Building, 2 by 4 cordless switchboard and 8 stations.

Wisconsin Music Co., Carroll Street, 2 by 4 cordless switchboard, 4 stations.
Keeley, Neckerman & Kessenich, 7 additional stations to their present system.

Additional stations were also added to the University of Wisconsin switchboard, and to the State Capitol switchboard.

On November 21st the district force gave a dancing party, Mr. and Mrs. C. L. Miller and Mr. and Mrs. H. Schroeder acting as chaperons. About fifty couples attended.

F. L. Clark, wire chief at Racine, was transferred to the Madison exchange. E. P. Gray, formerly of the Eau Claire district, succeeds Mr. Clark at Racine.

E. E. Huggins, wire chief at Madison, has been transferred to Janesville, succeeding L. W. Roberts, transferred to Madison.

The work of placing five blocks of underground conduit on East Main street, Madison, was completed in December by Foreman C. J. Davlin and crew of the state construction department.

Walter Scharff, day switchboardman at Madison, was married to Helen Barton, former toll operator at Madison, on Christmas Day.

Theodore Lien, chief clerk to District Manager Miller, has resigned to take up studies at Marquette College, Milwaukee.

Mary Callahan, clerk at the Madison local office, spent several days in Chicago recently, and did Christmas shopping.

Milwaukee District

On Saturday evening, December 27th, F. M. McEniry, commercial superintendent and George C. French, district commercial manager, tendered the members of the Milwaukee Press Club a dinner at the Hotel Wisconsin. Covers were laid for ninety guests.

Jerry Riordan, manager of the Harvest Stock Farms at Mayville, called up the chief operator just before Christmas and told her that she and the rest of the operators might go to Naber's dry goods store and pick out any pair of kid gloves that would suit their fancy. Of course, the girls did so. Surely the operators will handle Mr. Riordan with kid gloves now.

By the way the boxes of candy poured in at Christmas time, the Mayville operators must be popular with the telephone public. They received seventy-five boxes in all.

Carrie Weiss, night operator at Mayville, took her vacation during the holidays, spending part of her time with friends and relatives in Milwaukee.

Manager Keating of Mayville was more than delighted and very proud to receive a large box of Havanas for a Christmas present from his operators. He claims that they are dandy smokes, too. Who says a girl cannot pick out a good cigar?

E. A. Petersen of the plant department installed eighty new jacks and signals at the Burlington exchange in December.

The operators at Burlington received a number of boxes of candy from the subscribers as Christmas and New Year's remembrances, in appreciation of the service. On January 12th a plant meeting was held at the Burlington exchange by Messrs. Killam, Brennan, Schroeder and Mayer of Milwaukee.

The firm of Heartbrokers sent out their agent, Dan Cupid, and among the places he visited was Lake Geneva exchange, where he closed several deals. The first victim to succumb was Elizabeth Flemming of the traffic department, who resigned her position as local operator to be married. The little fellow was well armed and meant business, which we realized, when his fatal darts landed two more victims in the plant department, Raymond Whiting and Gerald Barlow. Now strict orders have been issued by Manager E. L. Edwards that no more agents are to be admitted.

John and James Allen and Frank Johnson remembered the operators at Christmas time by presenting them with boxes of candy. On New Year's day Dr. Oscar King of Lake Geneva Sanitarium sent each of the operators a box of candy. Richard Soutar showed his appreciation in the shape of a large bag of fruit.

Beatrice Peterson, clerk and Morse operator at Lake Geneva, has returned from a two weeks' vacation at her home in St. Paul, Minn.

Florence Reddy, chief operator at Lake Geneva, spent her vacation in Evanston, Ill.

Considerable work is being done by the Lake Geneva plant department to get the lines in shape for summer.

The Wisconsin Telephone Company has completed installation of a complete private system for the Milwaukee public schools. The system includes a switchboard and twenty stations at headquarters and stations in all buildings. F. M. Harback, secretary



TELEPHONE BUILDING, PHILLIPS, WIS.

Owned by Price County Telephone Company.

and business manager of the school board, planned the system in conjunction with J. P. Bennett, of the Wisconsin Telephone Company. It will cost the board \$4,200 per year.

The Waukesha operators received about eighty pounds of candy at Christmas time from different subscribers and twenty-four boxes of stationery from Sheriff E. Gibson. G. W. Johnson, manager, and Mrs. Johnson remembered the operators with a beautiful basket of fruit, and Dr. A. W. Brockway sent three little "Kewpie" dolls to the girls

on his line. Besides various other gifts the operators received fruit and about twenty-five pounds of candy on New Year's day.

Ada Schantz, toll operator at Waukesha, resigned her position January 15th to be married to J. W. Hale of Birmingham, England. Mr. Hale is a musician by profession and a graduate of the Royal College of Organists, London.

The employees of the Waukesha exchange remembered their manager, Mr. Johnson, with a fountain pen at Christmas time.

Walter Witt, credit man at Milwaukee and one of the most popular young men of the organization, was married on Sylvester Eve to Hattie Kuetner of Sheboygan, Wis., at the residence of Mr. Witt's parents.

Thomas S. Bell, the jovial adjuster at Milwaukee, has undergone an operation for appendicitis. Mr. Bell had a very serious case, but is at the present time well on the way to recovery.

The Milwaukee collection department has had considerable sickness among employees. Joseph Galewski, assistant cashier, has been obliged to discontinue work altogether because of ill health and has gone to northern Wisconsin on an extended visit. Mr. Bell, adjuster, also has been away during our busiest time. In addition to these two cases, we have had numerous stay-at-homes because of colds prevalent at this time of the year. The department, however, pulled through the discount period in fine shape.

Illinois Division

A. J. Parsons, Correspondent,
Springfield

Alton District

The Alton operators held a very pretty surprise watchparty, New Year's Eve, in honor of Irene Burrill, at the home of her aunt, Mrs. James Morrison, on Alby street. About thirty couples were present. Miss Burrill received a turquoise ring from the operators. Decorations consisted of blue and white, the Central Union colors. Various games, instrumental and vocal solos, furnished the evening's entertainment. Just at midnight the merry-makers were given a shower of "New Year's Resolutions" in Bell shape, with hand-painted wreaths of holly.

THE REASON WHY "HUSSEY-BINNS" CRUCIBLE CAST STEEL SHOVELS ARE THE MOST DURABLE

Process of Manufacture

The best quality of crucible cast steel for shovels.

The best quality of second growth northern white ash for handles.

The best quality of rivets.

The best quality of varnish to prevent the blade from rusting.

All steel used in these shovels is CRUCIBLE CAST STEEL manufactured by Hussey-Binns Shovel Company. It is the only crucible cast steel made in this country exclusively for shovels, which makes Hussey-Binns Shovel Company's shovels better and more uniform in quality than they could be made from steel bought in the general market.

Crucible or melting pot used in the manufacture of crucible cast steel. The pot being charged is then lowered into the furnace and its contents converted into steel of .55 to .65 carbon, which is poured into ingot moulds, making an individual ingot for each shovel or spade.

The metal being cooled and mould removed, there remains an ingot shaped like a shovel blade. The upper portion of the ingot is shaped and separated to form straps and socket, making the only crucible cast steel plain back shovel blade with socket and straps complete without welds or rivets.

Shovel blank rolled to a uniform thickness from ingot.

Shovel blank after being rolled under eccentric rolls. By the use of eccentric rolls the socket in the blade is distributed leaving



THE ONLY
ONE-PIECE
CRUCIBLE
CAST STEEL
PLAIN BACK
SHOVEL
MADE

it heaviest by several gauges at the socket and tapering thence in all directions to the outer edges.

Sheared shovel blank ready to be set to shape and tempered.

Shovel blade set to shape and tempered, with straps punched, ready for handle.

The wearing edge of the shovel is tempered to that degree of hardness which many years of experience has proven to be most serviceable and durable, while the straps and the upper portion of the blades retain the strength and toughness of the original steel.

This company controls a supply of the best quality of second growth northern white ash from which all handles used in these shovels are made. The handles are not artificially dried, but naturally seasoned for from 4 to 6 months, then bent to finished form.

To finish the shovel the handle is forced into the socket, the straps firmly laid and riveted, and pressed flush with handle by machinery. The shovel being ground and varnished and the handle cleaned, finished and ready for service.

HUSSEY-BINNS SHOVEL COMPANY, Pittsburgh, Pa.

Invitations have been issued for the second annual dance, given by the traffic department, at Alton, on the evening of January 30th, at the Illini Hotel. It will be remembered that last year the dance was a grand success, 108 couples being present. This year the committee has secured a larger and better dancing floor.

A. H. Downing, of Alton, spent Christmas at Beardstown, Ill.

Clyde Herrin resigned as repairman at Alton, and was succeeded by T. P. Mendenhall, formerly wire chief at Collinsville.

T. P. Mendenhall, wire chief at Collinsville, has resigned and is succeeded by W. C. Campbell.

C. E. Williamson, fire chief at Edwardsville, resigned and is succeeded by W. E. Hargate.

Centralia District

For the holidays the Edwardsville operating room was decorated with holly and colors appropriate to the season. The lights were covered with green shades. The retiring room, however, presented the most beautiful spectacle. From the center of the artistically decorated room hung a huge creation which contained a myriad of lights, all green and holly and mistletoe in large quantities. On the center table was a telephone from the mouth piece of which glowed the mellow rays of a green light. The operators are given a treat on this order every year, but they declare nothing has yet been seen to equal the elaborateness of the recent season's decorations.

The Ohio & Mississippi Valley Telephone Company and the Murphysboro Telephone Company, both with headquarters at Murphysboro, Ill., have merged. The new company, temporarily, will be operated under the name of the Murphysboro Telephone Company, but later a name more appropriate to the territory covered will be adopted. The capital stock has been increased from \$50,000 to \$250,000, and extensive improvements are planned. The officers of the merged company are A. B. Minton, president; A. J. Phillips, secretary, and John G. Hardy, treasurer.

The Citizens' Telephone & Telegraph Company of Carlyle, Ill., is stringing a new No. 12 copper metallic circuit between Carlyle and Trenton.

Rosie A. Brooks, recently employed with the Western Union Telegraph Company at Fargo, N. D., has accepted the position of Morse Operator No. 2 in the joint commercial office at Centralia.

C. R. Day, formerly manager at Centralia, and until recently employed in making commercial development studies, has resigned his position with this company and accepted a position with the Murphysboro Telephone Company, of Murphysboro, Ill.

C. G. Seytter, district traffic chief, spent the holidays in Indianapolis, Ind., with relatives.

G. A. Schmutte, manager at Cairo, Ill., spent the holidays in Springfield with relatives.

Decatur District

Theresa Smith, local supervisor at Decatur, has returned from a week's vacation spent in Arizona.

The Decatur exchange will begin making collections by mail February 1st.

The service observing board has been completed at Decatur, and is now ready for service.

Galesburg District

Edna Weirather, who has been chief operator at Bushnell for several years, resigned and, with her mother, moved to California.

Juanita Lewis, who has been clerk in the manager's office at Galesburg during the past six years, has moved to Rock Island with her mother, and has taken a position in the commercial department there.

Alta Lewis, night chief operator for the past three years at Galesburg, has resigned her position and is to be married in the spring.

Ruth Gilbert, toll operator at Galesburg, has resigned and is to be married to Frank Pugh, an employee of the C., B. & Q. Railroad.

Charles Yeaman, cable helper, was married to Shirley Brenner, operator at Onarga, Ill.

New toll line cables have been installed in connecting company offices of Monmouth, Macomb and Abingdon.

L. H. Harlow and family spent Christmas with relatives in St. Louis.

Ed. Pettingill has resigned as repairman at Kewanee, and Harry Hamrick has taken the position.

The plant department has just completed the estimate covering additional cable in the southern part of the city of Galesburg.

C. J. Ranney, commercial agent at Galesburg, for the past three years, has resigned and was married on January 6th to Edith Peterson. Mr. and Mrs. Ranney, after a short wedding trip, will be at home on a farm near Wataga, Ill.

C. L. Grimm has accepted a position as commercial agent at Galesburg.

A new private branch exchange, modified No. 101 switchboard and fifteen stations, has been installed for the Boss Manufacturing Company, at Kewanee, Ill.

Kankakee District

Thomas Brown, district commercial manager at Kankakee, is the proud possessor of a fine meerschau pipe, presented to him by the commercial department on Christmas.

A. V. Smith, formerly repairman at Kankakee, has been transferred to a similar position at Galesburg.

La Salle District

Christmas at the exchange, although a very busy day, brought pleasure to the hearts of the operators. La Salle, Peru and Oglesby citizens remembered the operators in the usual liberal manner. One hundred and twenty-five pounds of candy, ten dozen roses and carnations, two boxes of oranges, Baby Ben alarm clocks and home-made cake found their way into the operating room.

Paris District

Manager Wright is very suspicious, as several new diamond rings made their appearance after Christmas.

The Paris exchange was very kindly remembered Christmas by several of the merchants with gifts of candy, fruit and nuts, which were very greatly appreciated. The several offices of the exchange looked very pretty during the holidays with the Christmas bells and other decorations.

Ruth Smith has returned from a week's visit with relatives and friends at Anderson, Ind.

Peoria District

One two-position observation board is being installed at Peoria. The work is in charge of the state equipment department.

A No. 4 private branch exchange, consisting of five trunks, one switchboard and sixty-five sub-stations has just been completed for the Peoria & Pekin Union Railway Company at Peoria. The Peoria & Pekin Union is the terminal railroad of all lines operating in Peoria and this installation places telephones in all departments. A special effort was put forth by the plant department in order to comply with the subscriber's wish in making a prompt installation.

Contracts have been secured from the Hart Grain Weigher Company changing present equipment at Peoria from a No. 2 private branch exchange of eight stations to a No. 101 private branch exchange of fourteen stations.

The managers' meeting of the Peoria district was held at Peoria on December 17th. New business and other points in connection with commercial work were discussed. It was a good meeting and evidenced material benefit to all.

One of the lady employees of the commercial department at Peoria is wearing a new diamond ring since the visit of Kris Kringle at Christmas time.

A No. 4 private branch exchange has been installed for the Parlin & Orendorff Company at Canton and the substation equipment and wiring renewed.

Quincy District

Austin Seguin, traffic chief at Quincy, has been transferred to Rockford as traffic chief. Frank Dunham, of Chicago, has been assigned the position of traffic chief at Quincy exchange to succeed Mr. Seguin.

Cassie Crookery, information operator at Quincy, has resigned her position and is to be married in the near future to Charles McAllister.

Alois Noirot has been assigned a regular position at Quincy, in charge of the inside equipment.

Edgar Dallas, switchboard man has been transferred to Chicago from Quincy.

H. C. Abbott, with the plant department at Quincy, has been transferred to Chicago.

Mamie Hofmeister, ex-chief operator of the Quincy Home Telephone Company, has been assigned the position of observation operator on the new observation board, which has been completed at Quincy.

Ed. Flowers, district plant chief, who has been for a long time expecting a team of mules and a wagon for the plant department, received the same by parcel post as a Christmas present. The outfit consists of a brand new wagon, painted red, and having a colored driver. At the same time he also received a motorcycle with a seat for two, which he expects to use for toll line repairs and inspections. This also came by parcel post.

Rockford District

The operating force at Rockford presented Mr. Pettus, acting traffic chief, with a fountain pen as a Christmas remembrance. They also presented Ida Munthe, chief operator, with a gravy ladle in the mother silver pattern.

Alma Andrews, county supervisor at Rockford, was married Christmas Eve to Elmer Leason. Miss Andrews was the guest of honor at several pre-nuptial parties, among

"The French" Folding Door Telephone Booth

(Patent Pending)

ECONOMY OF SPACE: The movement of the FOLDING DOOR takes but four (4) inches of space beyond the front of the booth. This feature makes it possible to use this type of booth in narrow passageways. This is one of the many advantages of the FOLDING DOOR telephone booth.

Write for booklet describing the advantages of the "Folding Door" Booth

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

DISTRIBUTORS:

Western Electric Company

Houses in all principal cities



Door Open



Door Closed

which were a theater party and a miscellaneous shower.

Leone Martel, toll operator, spent a week in Davenport during the holidays.

Frances Kelly has been transferred from collector in the commercial department to the toll force.

Lester Pettus, acting traffic chief, at Rockford, for the past four months, has returned to Centralia. During Mr. Pettus' stay in Rockford he made many friends both in the exchange and about the city, who will learn with regret of his departure from Rockford.

W. A. Culp has been transferred from the construction to the plant department.

A. W. Wicks, the plant chief's clerk, spent Christmas with relatives in Davenport, Ia.

Michael McMarren, switchboardman, enjoyed a Christmas vacation at LaFayette and Indianapolis, Ind.

H. C. Upton, of the plant department, visited friends in Galesburg, over New Year's.

Rock Island District

Melissa Orr has returned to work at Rock Island, after an illness of several weeks.

Marle Losand recently resigned her position as local operator at Rock Island, to be married.

L. W. Pettit has accepted the position of private branch installer at Moline. Mr. Pettit was formerly with the Michigan State Telephone Company at Detroit.

R. J. Schamel has been transferred to the Rockford exchange.

The new building at Rock Island is just about completed.

Juanita Lewis, formerly clerk in the commercial department at Galesburg, Ill., has accepted a position as clerk in the Rock Island commercial department.

Springfield District

Emma Malensky, local operator, resigned January 1st, to be married.

Mrs. Mary Young succeeded Ruth Baker as local supervisor.

Elizabeth May, district instructor, left for Chicago January 4th to attend the school for instructors.

Hattie Peek, local supervisor, has been confined to her home on account of illness.

The toll girls gave a watch party and dance at the Washington Park Pavilion on New Year's Eve. Forty couples attended.

Elsie Jones, formerly night toll operator, resigned January 1st, to accept the position of private branch exchange operator for the Light, Heat and Power Company.

C. W. Bluhm, district plant chief at Springfield, advises that the plant department is accomplishing good results through the regular weekly meetings, which are held for the benefit of plant employees. The meetings are in the nature of a school of instruction and cover plant maintenance and construction.

A new observing board has been completed at Springfield.

The Western Electric Company is now installing two additional sections of switchboard at Springfield.

Rose Segin, clerk in the commercial office, resigned December 30th. She is succeeded by Edna Little.

Kletus J. Kennelly, service inspector, is attending the local operating school in Chicago.

The plant department completed the installation of a private branch exchange at the Reich Brewery at Springfield. Contracts were secured in the early part of December, and covered two trunks and nine stations.

The first appearance of the Central Union Telephone Company before the new Public Utility Commission occurred January 3rd, when the Springfield manager secured an order for a private branch exchange in the commission offices at the State House.

The plant department completed the installation of a private branch exchange in the office of Mr. Brady, auditor of public accounts, on December 24th.

The plant department at Springfield is entitled to great credit for the rapidity with which the installation of a private branch exchange for the First National Bank was handled. Contracts were secured by the manager on the afternoon of Wednesday, December 3rd, and the installation was completed on Friday, December 5th.

The Springfield Utility Company has moved from the corner of Fifth and Capitol avenues to the Odd Fellows' Building at Fourth and Monroe. The following letter from A. D. Mackie, general manager of the company, will be of interest:

"Dear Mr. Cogswell: I want to compliment your organization on the promptness, neatness and despatch with which you made the installation of the new switchboard and the various stations in our office. That's service. Yours very truly,

A. D. MACKIE,
General Manager."

George R. Leigh, commercial agent at Springfield, who has been ill, is at work again.

Among the visitors at Springfield during the month were: C. B. Cheadle and E. S. Sterritt, of the Macoupin County Telephone Company; B. M. Burke, of the Litchfield Telephone Company; E. D. Boynton, Boynton Telephone Company; Nathan Huzzey, Williamsville-Sherman Telephone Company; E. A. Purcell, Christian County Telephone Company; W. B. Ramsey, Auburn Telephone Company, and E. D. Blinn, Jr., of the Central Illinois Telephone & Telegraph Company.

Announcement of the approaching marriage of Anna Lohmiller, clerk in Mr. Leonard's office, and F. V. Wines, local switchboard man, has been made. The wedding will take place February 3rd.

The wedding of E. D. Blinn, Jr., manager of the Central Illinois Telephone & Telegraph Company, and Alma Frances Haller of Lincoln, Ill., was solemnized January 1st, at the Trinity Episcopal Church.

E. R. Cogswell, district commercial manager, delivered an address to the Springfield Ad. Men's Club on the evening of December 16, 1913. His subject was "The Telephone as an Advertising Medium," and his talk was instructive and highly appreciated by the ad. men.

On Thursday evening, January 8th, a surprise birthday dinner was given in honor of Grace Tucker, of the plant department,

which was attended by nine young ladies of the division office. Miss Tucker was the recipient of a handsome lavalliere from her friends.

Michigan Division

David H. Dodge, Correspondent,
Detroit

Detroit Operators' Meeting

"Extra" was the first word that met the operator's eye as she read that notice on the bulletin board in the retiring room of Main office, Detroit exchange. This notice was a cordial invitation to all traffic employees to attend a meeting (a party as it

is called among the girls) on Friday evening, December 12th, in the Society room, Main building. W. A. Spencer, traffic superintendent, and E. C. Laskey, traffic chief, were the spokesmen of the evening. Mr. Spencer gave a very interesting explanation of a chart which he had prepared, and gave the detail points which cause either good or poor service. He touched on all the important features connected with telephone work: slow passing, quick answers, good supervision, etc. His lecture was very much enjoyed by the girls, being entertaining as well as instructive, and he was heartily applauded at the conclusion.

Mr. Laskey could hardly make himself heard, so loud was the echo of the applause as he addressed the girls. He said he first wished to thank every one for the very good work they had all done in bringing up the standings of both the Main and

Cherry offices to the point they had reached, both in the past and present months. He hoped they would feel that he was particularly pleased and proud of them for the personal efforts each had made to bring the service up to such a high standard of efficiency, since they had never attained so high an average before, particularly in the Main exchange, and he added that he hoped they would all continue doing the same kind of work in the future and wished them all to feel that they were, each one of them, a very important wheel in the telephone machine. He spoke on the different items of the work, and then announced that the principal reason for the meeting was for the girls to have a good time and enjoy themselves as much as they could. He said he had prepared a special program for their entertainment, after which good things to eat would be served in the cafe upstairs, and then music would be furnished for dancing. While some of the entertainers were making ready, Mr. Laskey amused the girls with some of the funny stories they all love to hear him tell. He is strong with the dialect when it comes to the Irishman, Jew or Dutchman. The program was arranged as follows:

Piano solo, Barbara Schwohl, Main; vocal solo, Miss Cozzins, accompanied by her sister, Main; recitation, Miss Weisberger, Cherry; vocal solo, Blanche Downey, accompanied by Miss Fenan; vocal solo, Miss Mains, accompanied by Miss Kunze, Cherry chief operator; vocal solo, Miss Faber, accompanied by Miss Kunze; vocal duet, Miss Faber and Miss Mains, accompanied by Miss Kunze.

The real big surprises came after supper, when all had gone up to the big dancing and retiring room. This was, first, a character monologue entitled "The Tough and a Woman Suffragist," in an eccentric dancing specialty, impersonated by Della Roy, one of the operators, who scored a big success for herself. Charlotte Knekl, high-class vaudeville artist, also entertained with a classic dancing specialty. These specials were particularly entertaining, and our girls appreciated them very much, and are anxiously waiting for another meeting at a future date.



DELIA RAY,
"Tough Suffragette."



TELEPHONE BUILDING, CARLINVILLE, ILL.

The above picture is a reproduction of the Carlinville exchange building of the Macoupin County (connecting) Telephone Company. This is considered one of the handsomest exchange buildings in Illinois. The Macoupin County Telephone Company is the successor of the Carlinville Telephone Company and the Macoupin Telephone & Telegraph Company, and has completely rebuilt and consolidated the plants, installed a new central energy switchboard, new instruments and now has a complete up-to-date unified plant. E. S. Sterritt is general manager and C. B. Cheadle secretary of this company.

The New Detroit Order Table.

On this page is a picture of the telephone order table located in the office of the commercial department at Detroit.

The table is equipped with sixteen lines which can be answered at any position. When one line is in use a lamp signal burns at each position, notifying the clerks that some one is using this particular trunk line. Should it be necessary to look up information without disconnecting the party, the cam lever next to the lever that is thrown to connect the telephone instrument to the trunk line operates a holding coil when thrown in a vertical position; the same instrument can then be used in calling out on another line for the information requested.

The board is constructed in the form of a long table and gives each clerk plenty of room to make memoranda in a natural writing position. This feature has a decided advantage over a switchboard and over the installation of the telephone on individual desks because it places all of the lines under the supervision of one individual.

Our telephone order table is located close to the counter so that the young men who are delegated to wait on the public can have easy access to the telephone on the table, should the clerks sitting at the opposite side not be able to answer all calls promptly. Furthermore, it is often necessary to use a telephone to secure information for the subscriber at the counter so that by having the telephone convenient the clerk does not have to leave the individual on whom he is waiting when calling for the information desired.

An early photograph of this equipment shows it in a good light, together with the following employees: On the left, Stanley Smith, Roy Parker, R. W. Grimes, Clare Stark, Sydney Montague, H. E. Roetert and E. A. Hoffman. On the right, C. A. Reed, Jennie Moore, Blanche McNamara and F. J. Stevens.



NEW DETROIT ORDER TABLE

of the Bell Telephone System for a number of years and was very popular with his associates, who were inexpressibly shocked and grieved at his death.

P. B. X. Development in Detroit

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of December, 1913, were the following:

	Trunks	Stations
Southern Surety Co., Bonds (new)	2	6
Toledo Plate & Window Glass Co. (new)	2	6
Broadway Theater (new)	3	6
Ohio & Michigan Coal Co. (new)	2	6
Dr. H. N. Torrey (new residence—intercom.)	2	16
Saxon Motor Co. (new)	2	6
Parker Webb & Co., meat packers (additional) 8-position special order table	1	5
American Express Co. (additional)		13
Highland Park State Bank (new)	2	6
B. F. Goodrich Tire Co. (additional)	2	19

Of the total of seven private branch exchange contracts obtained during December, three were secured by Floyd H. Lockwood and four by Dare S. Burke. The new contracts and the "additional" supplied a total of sixty-eight new stations for Detroit during December.

During the year 1913 Messrs. Burke and Lockwood wrote 156 new private branch exchange contracts, with a gain in revenue of \$41,189.58—an increase of thirty-seven per cent. over the gain in revenue for 1912. This is exclusive of revenue derived from private branch exchange contracts with railroads.

Good Service at Ionia

The following letter has been received by the manager at Ionia:

"I wish to thank your long-distance operator for courtesy extended to me November 8th. I had occasion to use long distance to Detroit on this date on account of serious illness of my mother, and your operator was very prompt and courteous in handling this work.

"This is not the only time that I have appreciated the service; in fact your service here is good. Trusting the service here will continue satisfactory, I remain,

F. V. ALEXANDER."

To Hildegard's Beau

Lines to the young man who got us out of bed at ten o'clock last night to ask if Hildegard was in.

Were I the dad of Hildegard,
To whom you 'phoned last night at ten.
With you, young man, it would go hard
When next you called again.

I think I'd meet you on the porch,
Despite my added weight of years,
And say some things designed to scorch
Your long and waving ears.

And then to make the job complete
And rightly make an end of you
I'd land you somewhere in the street,
Via my shoe.

Were Hildegard a child of mine,
Though I'm of great romantic stock.
No swain should call her on the line
At ten o'clock.

If Hilda's parents do not fret
When roused by you from sweetest slumber,
Then for my sake be sure to get
The proper number.

If Hilda's parents don't object,
Nor care how late their child you woo.
Her number, please have it correct,
Because I do.—*Detroit Free Press.*

Traffic Promotions

Amber Minkler, North exchange, has been promoted to assistant evening chief operator. Nettie Mallory has taken up the duties of clerk at the North exchange, succeeding Olga Hoeuner. Irene Hayes has been transferred from the West exchange to assistant chief operator at the East exchange. Mona Sayles has been promoted to assistant chief operator at the West exchange to fill the position left vacant by Miss Hayes. Clara Trombley was promoted from operator at the Ridge exchange to evening supervisor to fill position left vacant by Florence Mitchell, who resigned December 20th to be married. Hildegard Bachmeier has been promoted from supervisor to evening assistant chief operator at the Ridge exchange. Gertrude Carney, Hemlock exchange, has been promoted from relief A supervisor to evening chief operator.

The following promotions took place in the Hemlock exchange during the past month: I. Olsen from relief A supervisor to day B supervisor; V. Collins from relief A operator to relief A supervisor; S. Payette from relief A operator to relief A supervisor; O. Billinghurst from relief B operator to senior operator; A. Wasti from day B operator to senior operator.

Death of Albert M. Southerland

ALBERT M. SOUTHERLAND, city foreman at Port Huron, committed suicide January 2nd. His act was the result of despondency over the death of his brother.

Mr. Southerland had been in the employ



Sterling
Contractors'
Barrow

Built to give and gives the kind of service which contractors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction.

It will hold over twice the load of ordinary pan-shaped barrows and will oulast two similar style barrows of any other make.

Among its desirable features are:

Channel steel legs—16 gauge steel tray—angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.

Highest Grade of Inside and Outside TELEPHONE WIRE

Made in accordance with the specifications of the Western Electric Company or those of any other customer.

The Electric Cable Company

17 Battery Place, New York

Boston
Philadelphia

Chicago
St. Louis

Cleveland
San Francisco

Works: Bridgeport, Conn.

Detroit Long-Distance Operators' Meeting

A meeting of the long-distance operators was held in the Telephone Society rooms Tuesday evening, December 16th. About seventy-five girls attended. The meeting was addressed by District Traffic Chief W. A. Spencer, who spoke of the service in general. He outlined the routine in completing calls over the "independent" circuits, also the necessity of operators being careful in the handling of their tickets, particularly in timing them, and the holding of subscribers' lines. A. J. Peckham, district manager at Potoskey, was a guest, and also addressed the meeting.

After the business meeting a musical entertainment was held, opening with a duet by Clarice Neate and Edna Wills, followed by a trio for violin, mandolin and piano by the Misses Wills and Miss Neate. Fay Ely and Minnie Albrecht contributed piano solos; Gladys Kingston a whistling solo; Kathryn Wills a vocal solo, and Miss Dietz and Fay Jarvis, recitations, the latter giving one of her own composition.

After the program refreshments were served in the cafe, after which the girls danced.

Delivery of Detroit Directory

This is one of the largest as well as most important duties which falls upon the commercial department to perform, as it requires a great amount of work and expense and because it is important that every subscriber receive a directory in order to be in close touch with the new subscribers and the people who have made changes since the previous issue. It has always been the telephone company's desire to pick up as many of the old directories as possible and in the quickest possible time, in order to lighten the duties of the information operators.

To deliver the December issue of the Detroit directory, the commercial department used sixteen trucks at the cost of \$4.50 per day, including a driver who acts as distributor. To supervise the work sixteen supervisors were necessary to see that each man performed his duties properly and assign the various streets to deliver. Each truck usually carries from four to six distributors, making a total of about eighty-five men who are paid at the rate of twenty-two cents per hour. The estimated cost for the December issue was about \$1,350, or a cost of one and one-half cents per book, net.

The total weight handled each delivery represents about sixty-five tons. Each book weighs one and one-half pounds. The total number of books ordered is 96,000, 90,000 of which are delivered in Detroit and the balance sent to various points, including the branch offices in the state as well as the American Telephone and Telegraph Company's offices in the United States.

The great difficulty that has always been experienced in a delivery of this kind is the lack of attention and interest displayed by the men acting as supervisors. This causes a great many people to be skipped and thus adds to the cost of delivery. It is also necessary to rely on a great many men who are hired temporarily and who display no interest at all. We have had considerable trouble along this line, as these men must be hired in a very short time. Most of these men are very unreliable and never have steady employment.

The man in charge of the work is in very close touch with his men at all times. He is supplied with an automobile and visits each truck in the various districts to see that the work is done properly and to keep a proper check of the men's time. The great difficulty



"LITTLE GIRLS" PARTY AT DETROIT.

in supervising this work is to use each rig to the best possible advantage.

The delivery of the December issue was conducted under the supervision of E. M. Steiner, assisted by William Melbeyer and W. H. Johnson. The total time required was eight days.

Detroit District

Cupid has been scattering his darts helter skelter in the long-distance operating department. Eight girls received diamond rings at Christmas time.

Margaret Kopp, day chief operator in the long-distance room, received a pearl ring at Christmas from the girls. Rose Trick, evening chief operator, received a lavalliere.

Anolla and Doris Rogers, of the long-distance department, gave a "little girls' party" at their home to a number of the girls in their department.

The girls of the Main B Second division and their supervisor, Etta Black, are very happy. Their division won the contest again last month. The Cherry A and Third divisions were very close contestants, the Third division winning by 1 of a point.

Miss L. Weiderhold, supervisor of the winning Third, thinks the girls will celebrate their victory with a theater party. The Main A Seventh division has won three of the last four contests. Elizabeth Kaiser, the supervisor, accompanied the division on a shopping trip which all said they enjoyed, and Saturday evening, January 3rd, they went to the Garrick Theater to see "The Honeymoon Express."

The Fifth A division of the Ridge exchange were the winners in the December contest. Thekla Sebastian and Anna Blank, supervisors, went with the girls of the winning division to the Garrick Theater, where they all enjoyed seeing "A Modern Girl."

The Main Cafe was a very pretty sight on Christmas day. The long-distance room tables looked very pretty with a Christmas tree on each for a center piece, and an abundance of holly decorating. That wasn't all that looked good. Promptly at 12:30 p. m. the girls were seated, and all sorts of good things were brought on—turkey and all the trimmings, and as much of everything as anybody wanted. The girls wish to thank the company and those who helped to prepare the goodies for them. It helped to make merry the Christmas for a large number.

The men in charge of the various sections of the commercial department reporting to C. S. Slack, commercial manager, presented him with a portfolio of tanned leather and plain design, as a Christmas remembrance.

Eastern District

Bass Lake toll station was discontinued for the winter December 1st. It will be reopened next summer.

Sadie Pardon, Ann Arbor local operator, spent Christmas at Oxford, Ohio.

Mrs. Ida Vogel, former local operator at Ann Arbor, won a \$100 diamond ring in a contest for the most popular young lady.

Marian Wallace spent the Christmas holidays with her mother in Detroit.

Percy Judd, wire chief at Ann Arbor, entertained all the men at Christmas dinner. He reports that George Kraiger, the chef, can make better "punkin" pie than mother used to make.

Charlotte Schubert, local operator at Ann Arbor, spent Christmas with her mother in Toledo.

Grand Rapids District

Installation of the Wilmarth Showcase Company's private branch exchange was completed December 31, 1913. This was one of nine private branch exchanges installed in Grand Rapids during 1913.

A contract has been accepted for a private branch exchange for the Grand Rapids Morning Herald.

S. N. Bradford was transferred from Holland to Big Rapids January 6th. Herman Miller of Grandville succeeds Mr. Bradford as manager at Holland.

Jackson District

Lula Eller, local supervisor at Jackson, has been ill with pneumonia.

Mabel Hawkes is filling a vacancy as all-night local operator at Jackson.

Iva Hills, local operator at Jackson, resigned to attend private school.

Florence McMillan is able to resume her duties as pay-station attendant at the Otsego Hotel, Jackson, after a three months' illness.

Clara Walz spent the Christmas holidays with her parents near Munnith.

Ruth Cheney resigned her position as toll operator at Jackson and surprised her friends by getting married on New Year's Day. She is now Mrs. Harold Cane.

Hazel Cheney, a former operator at the Warren exchange, Syracuse, N. Y., has taken a position as operator at Jackson.

On Wednesday, December 10th, the Jackson Y. W. C. A. entertained the Michigan State Telephone Girls at a gymnasium party. A very enjoyable evening was spent. Nora Ricks carried away the prize for wearing the broadest smile.

The Michigan State Telephone Girls' Basket Ball Team played a team of Citizens Telephone girls January 7th.

Miss Minus and Mrs. Crosby, chief operator and assistant chief operator, respectively, of the Lansing exchange, were guests of Miss Sharr at Jackson, January 3rd.

The Jackson local board has been dressed in new aprons and the operators feel very proud of it.

Jackson employees contributed \$10 to a fund raised by the Citizen-Press and Junior Dorcas Society for the purpose of providing a Christmas tree and dinner for poor children.

Florence Abbey has been appointed clerk in the Jackson commercial office.

C. M. Darling, commercial agent at Jackson, spent the Christmas holidays with relatives at Angola, Ind.

Luther Marsh, repairman at Jackson, has been transferred to the Monroe exchange as wire chief.

The Y. M. C. A. and A. T. boys visited

Partridge & Anderson
Designers
Engravers
Electrotypers
Stereotypers
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
100-16 N. Fifth Ave. Chicago
AUTOMATIC 31-757 31-758

ELECTROSE INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS
No. 2 No. 1 No. 7
No. 305 New No. 10 Old No. 10
LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
66-72 Washington St. BROOKLYN, N. Y.
66-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES

Yours for the Asking!

WRITE FOR A COPY

Mailed FREE on request.

It contains a lot of information about tools of all kinds. You'll find it handy. We'll gladly send you a copy without charge.

Mathias Klein & Sons

Canal Sta. 62 Chicago

Phone Wabash 628

When It's Zero Weather

If you have outside work to do which requires the use of a Gasoline Fire Pot or Torch, remember that "C. & L." Fire Pots and Torches are guaranteed by the maker to work perfectly indoors or out in hard wind or extreme cold, if directions are followed.

The powerful generators produce intensely hot blue flames, and will soon save their cost in the saving of fuel alone. Remember—you buy gasoline often, but a Torch or Fire Pot only occasionally.

Your nearest jobber can supply at factory price, or we will ship direct if cash accompanies the order. Send for catalog—it's free.

Clayton & Lambert Mfg. Co.

DETROIT, MICH., U. S. A.

No. 1 Fire Pot

Price Each—\$6.00 Net

the Jackson exchange January 2nd and inspected all departments under the guidance of Manager Stevens.

The Moscow and Jerome Rural Telephone Company at Moscow has been connected with Toll Line No. 702. This connection does away with the Moscow toll station. Moscow will be center checked by Hillsdale. The villages of Jerome, Somerset and Somerset center will be reached through Moscow.

Kalamazoo District

Raymond Conway has been checked in as manager at Vicksburg, to succeed J. I. McIntyre.

Marquette District

Anna Ourada, chief operator at Marquette, spent the Christmas holidays in Menominee, her home.

Leo LeGendre, Marquette troubleman, went to Norway to visit friends during the holidays.

Marjorie Monroe, operator, visited in Detroit during the Christmas vacation.

W. L. Muelman, equipment inspector, went to Green Bay, Wis., his home, to spend the holidays.

"Bill" Rapin, toll repairman, visited in St. Ignace over Christmas.

Among those who remembered the Marquette operators on Christmas day with large boxes of choice candy were the following: Lake Independence Lumber Company, Mr. Hoffman of Big Bay, the First National Bank, and J. J. Connley. The gifts were greatly appreciated by the operators.

A 400-pair cable was laid from Houghton to Hancock early in December. It was 1,268 feet long and was put down in one hour. A tug and scow were used.

Frank Ahlick has succeeded Earl Trombly as cableman's helper in this district.

C. E. Gardner, H. E. Harrington and Fred Clarke, of Detroit, were present at the

Ishpeming cut-over on December 29th. K. S. Baker, P. Sullivan and Miss Shrandt were also present.

A. C. Ludington resigned the first of the year to take a position in Ishpeming, his former home. His place in the commercial department has been filled by Ted Dawson.

The connecting company toll stations at Fairport and Vans Harbor have been discontinued. These places are now Class D offices in the Garden exchange of the Garden Telephone Company, which connects with the Michigan State Telephone Company through the Manistique Telephone Company.

Hugh Bonner succeeds Hayward Loomis as toll station manager at Spur 459.

C. C. Brown has discontinued the toll stations at Alger Camp and Matthews Camp, lumbering operations having ceased.

Young ladies of the Marquette accounting, traffic and commercial departments gave a sleigh ride on the afternoon of January 17th. Rose Oudette was captain of the party. They left about 4 p. m., rode all over the city and had dinner at Ferris's camp.

The Marquette operators gave a ball January 5th. Everybody had a good time and all were in the best of humor when the picture at the bottom of this page was taken.

Port Huron District

The following letter was a source of deep gratification to the employees at Port Huron:

Port Huron, Mich., Jan. 2, 1914.

Mr. E. L. Berry, Mgr.,
Michigan State Telephone Company,
Port Huron, Mich.

Dear Sir:—I have very often spoken to you personally of my appreciation of courteousness, which I am daily receiving at the hands of the operators in your exchange. To put this expression into "black and white" may be appreciated by both yourself and your operators and I am glad indeed to do this. The year which has just closed has been every day

one of appreciation on my part for the excellent work which has been done in my behalf when my work demanded promptness and courtesy, neither of which has been lacking. I do not believe that this has been the work of one operator only, so my hearty thanks can be extended to all of your working force, not omitting the operators of the "Long Distance," clerks, the chief operator and the "Information" operator. I have in my home also had occasion to find an equal amount of courtesy with that at my office desk.

Let me thank you again for personal favors as well as that of your employees

Yours,
S. S. HOPKINS.

A Happy New Year for all.

Petoskey District

T. C. Gronseth has succeeded W. Bradway as manager of the toll station at Indian River, Cheboygan County.

Saginaw District

A toll station has been opened at Poseyville with H. M. Ward as manager.

A gift from the United States Gypsum Company at Alabaster was accompanied by the following letter:

Christmas, 1913.

With the best of good wishes to the four nicest and most accommodating 'phone operators in the state of Michigan for a Merry Christmas and a Happy New Year, and many of them from

Yours truly,
GEO. F. KELLER,
EDWARD F. DEWEY,
R. F. L. BACCHUS.

The Prescott Telephone Company, formerly a corporation, has been purchased by Ralph Marsau of Prescott, who expects to make considerable rural development.

Robert Bradford, of Saginaw, has been employed by the plant department at Bay City as switchboard man.

The Bowmansville toll station has been discontinued. There is now no telephone connection in this territory.

Roadway Company Notes

A contract has been made with the Powell Roadway Company to connect eleven stations with the Plainwell exchange.

Connection has been established at Mancelona with the eight subscribers of the East Mancelona Telephone Company.

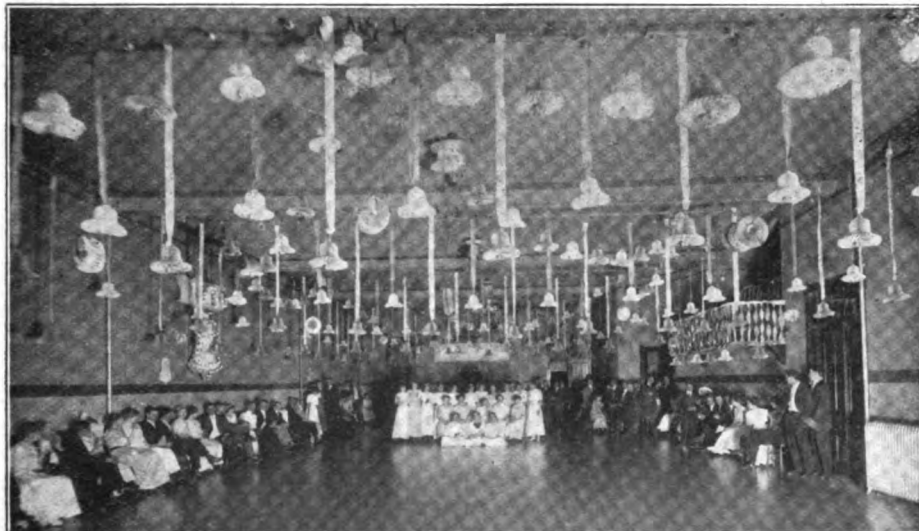
A contract has been signed with the Hitchcock Roadway Company to connect ten subscribers with the Michigan State Telephone Company's exchange at Scotts.

A contract has been signed with the Cheny Roadway Company to connect eleven subscribers with the Michigan State Telephone Company's exchange at Scotts.

A contract has been executed with the Codere Telephone Company of Lake Linden, connecting seven subscribers to the Lake Linden exchange.

The Overland Roadway Company, with nineteen subscribers, has been connected with the Stephenson exchange.

A contract has been made with the Little River Telephone Company to connect eleven subscribers to the Menominee exchange.



EMPLOYEES' DANCE AT MARQUETTE, MICH.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

**National Pole
Company**

Esconaba, Michigan

When you want a Lock
you want the best.

**EAGLE
LOCK
CO.**

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



**"Thomas Quality"
Porcelain Insulators**

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



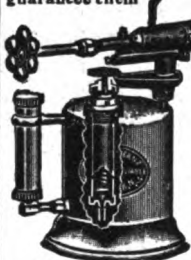
Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by
Western Electric Company

Offices in all principal cities

"Always Reliable Torches"

Are the best on the market. They
are thoroughly tested before leaving
factory which
enables us to
guarantee them



Fitted with
PATENT-
ED "never
leak" pump
and PAT-
ENTED
"one piece"
soldering iron
rest.

Burners on
No. 25 and No.
26 torches
generate gas
much quicker
than other
burners, enab-
ling the user to
obtain a blue
flame in a short-
er time.

We also manu-
facture a com-
plete line of fur-
naces especially adapted for the use of
telephone and telegraph companies.

Manufactured by
OTTO BERNZ, Newark, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



No. 2521	Each
Doz. lots	20c
100 "	12c
500 "	11c
	10c

Frankel Display Fixture Co.

Hudson and Vestry Sts.
NEW YORK CITY

Incorporated 1911

**ALBERT G.
SEEBOTH
COMPANY**

MILWAUKEE, WIS.

Manufacturers of

**Cotton Batts, Cotton
and Woollen Waste**

Phone South 532

Place your orders with us,
we save you money.

"Beldenite" Rubber Insulated
Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Taps and Terminals.

CORRESPONDENCE INVITED

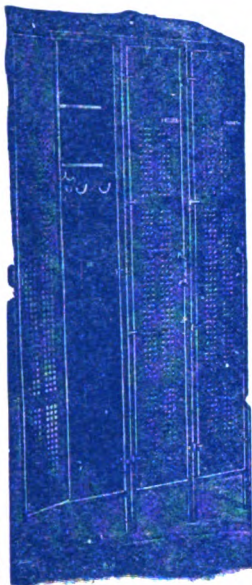
BELDEN MANUFACTURING COMPANY
2318 South Western Avenue, CHICAGO

ADVERTISING

In the

**Bell Telephone
News**

**BRINGS
RESULTS**



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

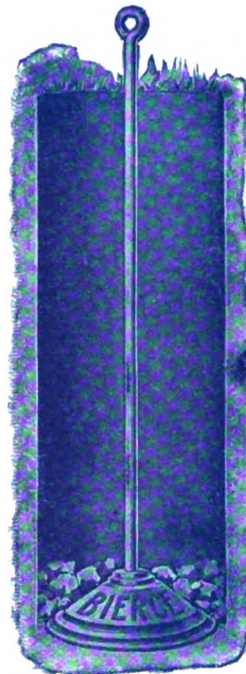
We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

TAKE NOTICE



Pat. Aug. 19, '13

The **Bierce Anchor** has been approved by the A. T. & T. Co., of New York.

The Bell Companies of Ohio, Indiana, Michigan, Illinois and Wisconsin have been using Bierce Anchors for months past. Ask the Bell man in your territory.

Costs less, holds more, will not creep, and can be buried quicker than any other anchor.

Sent on approval.

Write us.

THE SPECIALTY DEVICE CO.
112 West Third Street, CINCINNATI, OHIO

HAVE HOT WATER ALL WINTER BY SPECIFYING THE "ILLINOIS" Hot Water Heater



Magazine Feed

For **HARD** or
SOFT COAL

**EFFICIENT
AND
DURABLE**

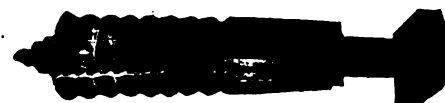
**KEEPS FIRE
OVER NIGHT**

Illinois Malleable Iron Co.
CHICAGO, ILLINOIS

Also manufacturers of a complete line of
Malleable and Cast Iron Pipe Fittings.

Diamond Expansion Bolts

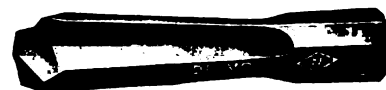
For fastening all kinds of material to brick,
stone or concrete
QUICKLY — POSITIVELY — SECURELY



"Diamond N" Expansion Bolt



"Diamond N" Screw Anchor

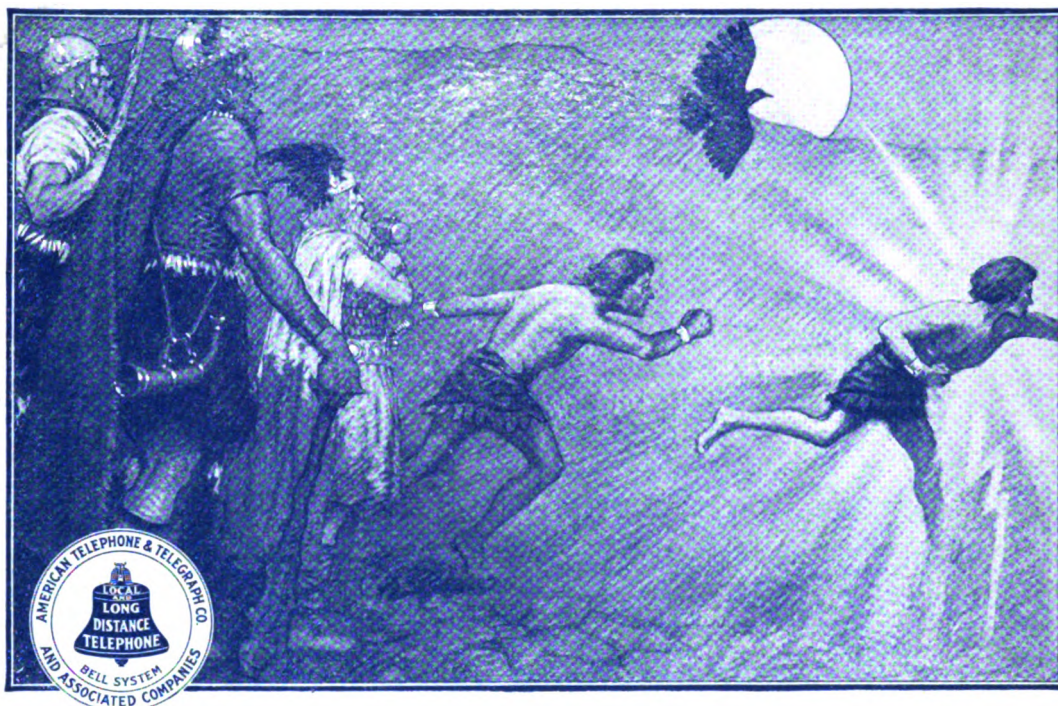


"Diamond N" Four Point Drill

The right bolt with the right drill gives best results

"Hold As Long As the Wall Lasts"

Diamond Expansion Bolt Co.
Manufacturers of Diamond Specialties
90 WEST ST., NEW YORK



The Magic Flight of Thought

AGES ago, Thor, the champion of the Scandinavian gods, invaded Jotunheim, the land of the giants, and was challenged to feats of skill by Loki, the king.

Thor matched Thialfi, the swiftest of mortals, against Hugi in a footrace. Thrice they swept over the course, but each time Thialfi was hopelessly defeated by Loki's runner.

Loki confessed to Thor afterward that he had deceived the god by enchantments, saying, "Hugi was my thought, and what speed can ever equal his?"

But the flight of thought is no longer a magic power of mythical beings, for

the Bell Telephone has made it a common daily experience.

Over the telephone, the spoken thought is transmitted instantly, directly where we send it, outdistancing every other means for the carrying of messages.

In the Bell System, the telephone lines reach throughout the country, and the thoughts of the people are carried with lightning speed in all directions, one mile, a hundred, or two thousand miles away.

And because the Bell System so adequately serves the practical needs of the people, the magic of thought's swift flight occurs 25,000,000 times every twenty-four hours.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

March, 1914

No. 8

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

FEBRUARY 1, 1914

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	510,057	254,377	764,434
INDIANA	87,710	181,198	268,908
OHIO	173,893	194,565	368,458
MICHIGAN	201,386	59,989	261,375
WISCONSIN	<u>136,660</u>	<u>117,892</u>	<u>254,552</u>
	1,109,706	808,021	1,917,727

BELL · TELEPHONE · NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., MARCH, 1914

Number 8

Diver Makes Inspection of Telephone Conduits at Bottom of Chicago River.

Work Not Provided for in Any Standard Specification Successfully Accomplished Under Direction of Plant Department.

Submarine inspection was resorted to a few weeks ago in Chicago to avoid the possibility of accident in pulling cable through pipes crossing the south branch of the Chicago River at Thirty-eighth street.

Almost anything you can think of in the way of a method of doing things in telephone work is standardized these days and the plant men who follow rules and routines are usually sure to get the desired result with the minimum of labor and expense. But when it came to the matter of inspecting these pipes lying on the bottom of the river, the standard rules furnished no suggestion. The obvious method, therefore, was to get in touch with some one who knew something about work under water.

The services of a professional diver, Harry Halvorsen, were secured. Mr. Halvorsen has had nine years experience as a diver and has worked under practically all conditions. He was once down to a depth of 110 feet in Lake Superior.

The pictures show the diver preparing to descend to the bottom of the river. It might be supposed that the view on this page represents some ecclesiastical ceremony of the Middle Ages. It simply shows, however, the process of adjusting the head piece or helmet which is best accomplished with the diver in a sitting posture. The diving suit is canvas and rubber, canvas outside and rubber inside. With the helmet and breastplate, or "corset," as it is called, the suit weighs fifty pounds. The shoes weigh fifteen pounds each. The weight of the belt is governed by the distance the diver expects to descend. If this is more than fifteen feet a belt weighing 100 pounds is worn.

At the point where this inspection was made the river is usually filled with ooze and refuse and the water is almost as thick as molasses. It is correspondingly opaque and the diver could, of course, see nothing when he got below the surface. He was therefore compelled to rely entirely on his hands. Start-

ing from the dock side of the river he followed his way along the pipes as far as the air hose would allow him to go, which was about the center of the stream. Then the same process was repeated from the other side. The examination showed that the pipes lay properly in the river bed and no trouble was likely to occur when the cables were pulled through.

"To one who has not been under water in a diving suit, it is hard to explain just how a diver feels," said Mr. Halvorsen after he had completed the inspection described above. "To begin with, a diver must be a strong man physically, have a

strong heart and good lungs, and be able to maintain his presence of mind, as there are a great many things that may happen when a man is working under water.

"It was impossible for me to see anything while under the river working on this job. The pressure of the slime here is so great that it almost closed the safety valve and caused me to breathe deep. While air is being pumped into the suit, there is a constant hissing sound made by the exhaust air as it escapes through this valve. If this hissing sound stops, the diver should come to the surface as soon as possible, otherwise the air pressure is likely to burst the ear drums. The deeper one goes the more air is required to be pumped to offset the pressure of water."



DIVER PREPARING TO ENTER CHICAGO RIVER TO INSPECT PIPES.

The inspection described above was made under T. H. Carson, Division Foreman of the South construction division. Mr. Carson furnished the details to THE NEWS. Something more about the character of the river at the point where the inspection was made, or "Bubbly Creek," as it is often called, may be found in the article on Yards exchange on another page of this issue. The bottom of the stream is filled with refuse which, as it decays, gives off gas which rises to the surface in bubbles. It was in this water that Mr. Halvorsen's inspection had to be made. It is easy to understand why he had to feel his way.

Annual Report of Chicago Telephone Company

The annual report of the Chicago Telephone Company, made to the stockholders by the directors, follows. The balance sheet, earnings statement and statistics accompanying the report appear on this page.

CHICAGO TELEPHONE COMPANY.

Chicago, February 3, 1914.

To the Stockholders:

In the statement of a year ago, attention was called to the fact that the growth in telephones for the year 1912, 48,074, was the largest in any year in the history of the Company. The growth in 1913 was 48,275, so that the showing for 1912 has been exceeded. The total number of telephones December 31, 1913, was 430,812. (Six years ago there were 202,681 telephones, or less than half the present number). The increase in telephones in Chicago continues to be largely for the low priced service.

To care for the new subscribers added in 1912, the Plant Account was increased \$4,283,664, and in 1913, \$5,869,589. Approximately \$6,000,000 will be required for the purpose in 1914. The effect of such rapid growth is not limited to the addition of new plant but involves the replacement of existing plant, in some instances, long before it has had its normal life. Such replacement, together with the replacement not attributable to growth, is charged to Depreciation Reserve, and amounted to \$1,014,145 in 1912, and \$1,558,070 in 1913. While the replacement has been in the past largely with reference to outside plant, the removal of poles and wires and substitution of aerial or underground cable and the substitution of larger cables for smaller; we are in a condition now where several exchanges in the city, including the land, buildings and switchboards, etc., must be abandoned, the salvage value of which will be small, and new and larger exchanges provided.

Not only are exchange, outgrown, but the "Wire Center" shifts, and exchanges located ten years ago, or even more recently, in what was then the "Wire Center" of the district to be served, are now found to be, on account of the new telephones installed, from one-half to a mile or more from the present or prospective center. Because of the heavy expense for conduits and cables, the necessity of having exchanges centrally located with respect to the location of subscribers will be readily appreciated. The new exchanges of recent years have been constructed with reference to a continuing large growth. Larger parcels of ground have been bought than heretofore, and buildings and switchboards provided to which additions can be readily and effectively made. Notwithstanding, the charge to replacement on account of growth must necessarily be a heavy one each year for some time to come. It is a toll that is exacted in the experience of every progressive enterprise.

The negotiations with the city with reference to rates and classes of service, which were carried on for about four years, were finally concluded in June, 1913, and rates and classes of service were at that time fixed by ordinance for a five-year period. A sufficient length of time has not elapsed since the new rates and classes of service have been in force to determine the effect on the revenue.

The Pension, Disability and Insurance plan for the benefit of the employees, to support which \$400,000 was set aside by the Directors, has been in operation from January 1, 1912. Financial aid has been rendered in 1,555 cases of sickness, 709 accidents and 3 deaths. There were two pension payments. The total number of cases was 2,273, and the amount paid out was \$105,418. The operation of the plan did not get fully under way during the first two or three months of the year, so that the amount is less than was estimated for the year, and less than it will be for the current year. The payment as indicated, plus the cost of administration,

about \$6,000, was charged to Operating Expenses and the fund restored to \$400,000.

The telephone service of the Company during the year has been singularly free from criticism. With 430,000 telephones in use an average of seven times a day each for outgoing calls, by men, women and children, some of whom are inexperienced in the use of the telephone, the calls handled by 7,000 operators, the opportunity for error was very great. The task of the officers and employees, to which they have devoted themselves continuously, is to reduce the number of errors, and to maintain—and if possible increase—the speed in completing connections.

The officers of the Company gratefully acknowledge the spirit of cooperation in all of the employees, and the pride and interest which they have taken in the discharge of their duties. The officers of the Company are, furthermore, indebted to the subscribers for their confidence and cooperation, both of which are so necessary to the satisfactory operation of a service that is so exacting.

For the Board of Directors,
B. E. SUNNY, President.

CHICAGO TELEPHONE COMPANY EARNINGS STATEMENT

	1912	1913
Gross Earnings....	\$14,538,399.43	\$16,274,602.23
Operat'n Expenses..	5,730,674.54	6,620,413.39
Cur. Maintenance..	2,655,550.98	2,581,391.05
Depreciation	2,063,594.00	2,608,529.63
Taxes	792,871.30	858,300.00
	\$11,242,690.82	\$12,668,634.07
Net Earnings.....	3,295,708.61	3,606,968.16
Deduct Interest....	761,296.09	969,413.64
Balance	\$2,534,412.52	\$2,636,554.52
Deduct Div. 8% ..	2,160,000.00	2,160,000.00
Ap. to Sink. Fund		1,000.00
Surplus Earnings..	\$374,412.52	\$475,554.52

STATISTICS

	At December 31, 1913	Increase During Year
Number of Owned Stations	430,812	48,275
Number of Connecting and Misc. Stations..	8,998	*600
Total Stations.....	439,810	47,675
Number of Miles of Wire	1,139,471.45	239,941.85
Number of Central Offices	149	
B. S. GARVEY, General Auditor.		
*Decrease.		

BALANCE SHEET, DECEMBER 31

Assets.		
	1912	1913
Real Estate.....	\$4,901,925.28	\$5,396,735.91
Telephone Plant....	36,522,783.96	42,133,333.28
Furniture, Tools and Supplies....	1,597,863.84	1,356,886.56
Cash and Deposits..	933,663.19	393,696.73
Bills and Accounts Receivable	11,230,892.04	8,487,960.45
Stocks and Bonds..	11,252.50	9,952.50
Sinking Fund Assets	2,000.00	3,000.00
	\$55,200,380.81	\$57,781,565.43
Liabilities.		
	1912	1913
Capital Stock Issued	\$27,000,000.00	\$27,000,000.00
First Mortgage 5% Gold Bonds, 1923	19,000,000.00	19,004,000.00
Other Bonds Issued	14,000.00	14,000.00
Real Estate Mortgages	4,000.00	3,500.00
Accounts Payable..	991,879.96	1,923,065.77
Accrued Liabilities, not due	781,230.78	871,900.96
Premium on First Mortgage Bonds..	65,500.00	59,470.50
Employees' Benefit Fund	400,000.00	400,000.00
Replacement Reserves	6,614,689.01	7,707,841.84
Miscellaneous Reserve	134,022.82	135,022.82
Surplus	195,058.24	662,763.54
	\$55,200,380.81	\$57,781,565.43



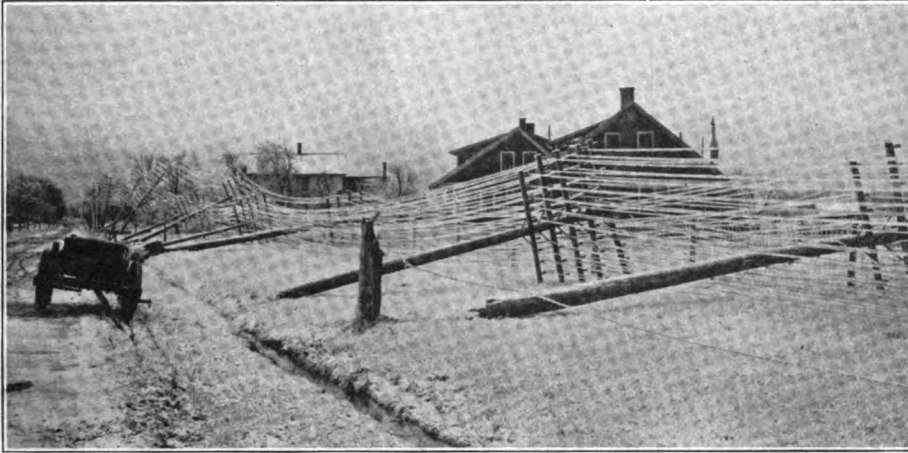
SHOWING DIVING SUIT WITHOUT HELMET.

Storm in Indiana

During the night of January 30th a section of Indiana was visited by the most severe sleet storm in recent years. The storm began in the southwestern section of the state and passed in a northeasterly direction, covering a section seventy miles wide and passing over Vincennes, Bloomington, Spencer, Indianapolis, Noblesville, Anderson, Muncie, Marion and Gas

Company, Haskins, Ohio; The Crescent Telephone Company, Weston, Ohio.

As soon as the storm's fury abated, gangs of extra men were hurried to the scene of devastation, supplies of necessary material were rushed in and the work of restoring the service was begun. Toll lines received first attention, as many points were cut off from all means of outside communication.



EFFECTS OF STORM IN OHIO.

South Columbus avenue, Sandusky. Plant Chief Dietz lives in the first house.

City. During this night and the following day, 1,840 poles were broken off in the exchange and toll plants; approximately 3,000 subscribers were out of service. The toll lines, especially around Indianapolis, were down in all directions, with the exception of a very stout lead from Indianapolis to Muncie, Ind.

Repairs began early on the morning of the thirty-first, but very little could be accomplished in the way of establishing service on that day or the following, because of sleet sticking to the wires. As a high wind was blowing, lines were constantly falling behind the repairmen. However, by noon of February 1st the sleet began to drop off the wires and the plant men were able to reestablish communication between towns at a rapid rate. By the night of February 1st communication had been restored between several cities. Each day saw more points connected up until by noon of February 7th all circuits were made good temporarily.

This is considered a good record in view of the fact that no regular construction gangs were at work in the state at the time of the storm, and men to do the work had to be secured.

The damage is estimated at between \$100,000 and \$125,000. The damage was not confined to poles, as exchange and toll lines were broken by the sleet in many places.

Storm in Ohio

On January 30th the northwestern part of Ohio was also visited by a severe sleet and snowstorm which completely paralyzed telephone and telegraph service as well as railroads and traction lines. Miles of toll lines were down, and in many places rural lines and city lines were badly crippled, leaving hundreds of subscribers out of service. The exchanges suffering most were Findlay, Sandusky, Norwalk and Fremont. The following connecting companies were also badly hit and sustained heavy losses. The Tiffin Consolidated Telephone Company, Tiffin, Ohio; The Rising Bell Telephone Company, Rising Sun, Ohio; The Haskins Bell Telephone

Tree Trimming in Fort Wayne

The Central Union Telephone Company has completed what is the most extensive and satisfactory job of tree trimming that has ever been done locally by a public service corporation. A very unique feature was that the work was done with very little objection from the property owners, and under the direct supervision of a member of the city forestry force. The Central Union Company requested City Forester Carl J. Getz, to delegate one of his assistants to

by the following letter addressed to the foreman of the trimming gang by Forester Getz:

Mr. Webb DeVore,

Bell Telephone Company,
Fort Wayne, Ind.

Dear Sir: The trimming of trees on West Main street by your Mr. Merle Apple, under the general supervision of our forestry inspector, Marlon Large, is to be commended. I have received many favorable comments upon the work by affected property owners. Your squad of tree trimmers are alert to receive proper instructions in the art of practical tree trimming, and the high calibre of the work they are doing is their best recommendation.

I send this as a matter of appreciation of your deserving and energetic Mr. Apple.

Yours very truly,

(Signed)

CARL J. GETZ,
City Forester.

The progress of the work was attended with several amusing features. A few property owners with memories of past tree butchering in their minds, refused to permit their trees to be cut until convinced that the work was being done under a permit from the city, and then very reluctantly. One gentleman who was particularly vehement in protesting, looked over his trees after the trimming had been completed and was so well pleased that he brought out a box of cigars and treated every man in the gang. A lady on Maumee avenue was so indignant at the thought of her trees being touched that she called up the police station and had an officer sent out to prevent it. The officer explained the situation to her, and the work proceeded. Later this lady acknowledged to the foreman that she had been too hasty, and expressed herself as well pleased with the result. Not only has such trimming been done as cleared the wires, but the men have extended the scope of their work to include cutting down trees condemned by the forester, removing stumps to below ground level and even in several instances trimming trees in back yards at request of owners who recognized the improved appearance of the trees on the street. The work being



EFFECTS OF STORM IN OHIO.

Harrison and Seneca streets, Sandusky.

accompany its trimmers and see that the trimming was done to his satisfaction. While the primary object of the trimming was to give necessary clearance to the long-distance toll lines, it was desired not only to accomplish this but at the same time leave the trees in such condition as they would be had the work been done by the city forester with no other object in view but the general improvement in appearance and condition of the trees themselves.

That the work was well done is shown

done by the telephone company under direct supervision of the city is in marked contrast to what some property owners are personally doing under the impression that they know what is best for the trees they love and fear to have any one else touch. An example of this can be seen at the corner of Hanna and Taber streets, where a well-meaning citizen has indulged in some tree surgery that has not only impaired the beauty but endangered the life of the patient.

—Fort Wayne Journal-Gazette.

The Various Forms of Bacteria or Germs, Their Injurious Action Within the Body, and a Description of the Antitoxin or Serum Treatment.

By Dr. Alvah H. Doty, Medical Director Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company.

As early as the seventeenth century various investigators had observed with the aid of the weak and imperfect magnifying glasses of the period that both solids and fluids contained very small living bodies which were seen to move about in the field of vision. As these glasses gained power through more skillful grinding smaller objects were revealed, until the microscope of today is able to detect the most minute living organisms, some of which, although not more than 1-50,000 of an inch in size, are brought clearly into view and easily studied. These little bodies are known as microorganisms, or by the more common and well-known name of "bacteria."

Although some of the larger of these bodies were early recognized by investigators, they remained for a long time chiefly a matter of curiosity before an effort was made to study or classify them. This, however, gradually took place, and bacteriology, which treats of the subject, now plays an exceedingly important part in the prevention and cure of disease.

Even long ago it was suggested that these minute living bodies were in some way connected with the transmission of disease, although but little satisfactory or definite knowledge was secured in this direction until about 1880, when Pasteur and Koch, respectively a French and German bacteriologist, working independently of each other, presented to the world conclusive evidence of the germ origin of disease. Since that period bacteriology has made rapid strides, and laboratories throughout the world are carrying on most important and exhaustive investigations regarding this subject.

Bacteria are now not only classified, but each one discovered has been carefully studied as to its special habits and characteristics, the conditions under which it thrives best, and the agents which are destructive to it. In this way means have been found to render them far less dangerous.

Bacteria are divided into three groups, according to their shape. Those which are round are known as "cocci," those which are long or rod-shaped as "bacilli," and the curved or spiral ones are called "spirilla." These groups do not change from one shape to another, although the individuals of the different groups have certain peculiarities by which they may be identified from others of the same group. Bacteriologists must be familiar with this condition in order that they may be able to positively identify them as the cause of certain diseases.

As an illustration, it may be said that the round bacteria or "cocci" are found in pneumonia and meningitis. The long or rod-shaped bacteria or "bacilli" are found in typhoid fever and tuberculosis. The curved or twisted bacteria known as "spirilla" are found in cholera. While it is often difficult to promptly separate the germs of each group from each other, continued improvement in the power of the microscope and the more effective means of staining the germs in order that they may be more easily detected has gone far to remove the difficulties

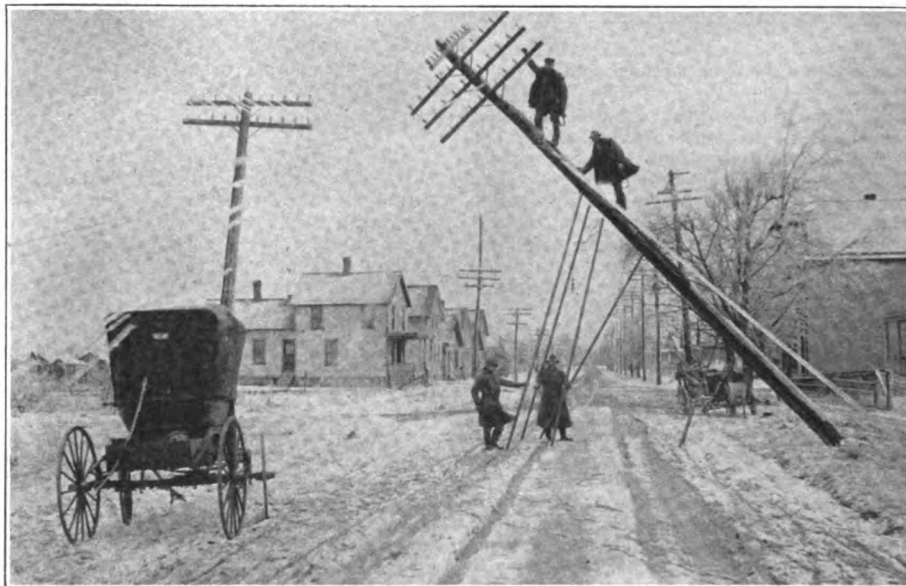
connected with this work. This is very important, as the identification of numerous diseases now depends almost entirely upon bacteriological examination. It is by this means we hope to go far towards the elimination of some of the infectious diseases, i. e., by their early detection, isolation of the patient, disinfection, etc.

Very important advances have been made in connection with the subject of bacteria relative to the results which follow the introduction of these germs into the system, the manner in which they cause disease and what becomes of them.

When we consider the enormous number of bacteria which may enter the system at any one time and the rapidity with

It is not the mere presence of the bacteria within the body which is responsible for the danger which often follows their invasion. This is more directly due to the fact that the bacteria give off a poisonous product known as "toxin," which may be regarded as the dangerous factor in connection with this condition. The presence of this poison stimulates the blood of the one affected to produce an antagonist known as "antitoxin" to overcome or neutralize the toxin; therefore, both the blood itself and the leucocytes which it contains are agents of protection.

It was believed by the investigators who early studied this subject that if an antitoxin of this character could be prepared in large quantities outside of the



EFFECTS OF STORM IN OHIO.

Campbell street and Perkins avenue, Sandusky. The buggy in the picture was caught when the wires fell.

which they multiply, for in some instances they double in number every twenty minutes or half hour, it is a surprise that we ever escape serious results after infection has occurred. However, we have more recently obtained definite knowledge relating to this subject, which shows how we are protected against this danger by the powerful antagonism which exists in certain constituents of the blood and even the tissues of the body to the action of these germs. While this protection is not by any means always sufficient to overcome the injury produced by the invasion of bacteria, the fact that recovery so often occurs is due largely to the resistance just referred to.

In the blood are found little round microscopic bodies known as leucocytes, the function of which for a long time was in doubt, but we now know that in addition to whatever else they may do they are germ destroyers, and with the aid of the microscope we can see the bacteria drawn within the leucocytes and destroyed.

human body and promptly introduced into it in a considerable amount when infectious diseases occur, to aid the antitoxin already formed in the blood of the person affected, it would go far to render the disease mild, or if injected in a person who had been simply exposed it would probably render them immune or prevent the appearance of the disease.

In the investigation of this subject it was shown that some animals, particularly the horse, are not very susceptible to the action of certain infectious germs which are commonly dangerous to the human being. This formed the basis of most exhaustive experimental work along these lines, and proved if certain germs affecting the human being are injected into the circulation of the horse, it at once stimulates the production of antitoxin in comparatively large quantities. If afterwards the fluid part of the blood or serum containing the antitoxin is withdrawn from the horse under treatment by opening a vein and then freed from possible contamination, it may be bottled,

sealed and made ready for use in the human being under the name of the antitoxin or serum treatment.

Experimental work has largely defined the amount of antitoxin necessary to combat the germs which may have entered the system or to prevent the disease in those who have not already become infected. Furthermore, it has been shown that if the use of the antitoxin is delayed until the disease has progressed for some time it is of little or no value.

As each form of bacteria probably produces its own peculiar toxin or poison, it naturally follows that a special antitoxin is preferable for each disease. For instance, to secure a diphtheria antitoxin, horses are injected with the diphtheria bacilli or their products.

Antitoxins have not been prepared for all infectious diseases, for the germs of some of them have not yet been discovered. Besides, successful results in this direction cannot always be obtained even in diseases where the specific organism has been identified. Theoretically it may not seem difficult to obtain by the means already referred to an efficient antitoxin in instances where the germ of the disease has been found, yet there are many practical difficulties which render this often difficult, if not impossible.

The diphtheria antitoxin is probably the most successful and the one most commonly employed. It is used both to immunize persons who have been exposed, and in this way to prevent the occurrence of the disease, and also render it mild or less dangerous in instances where a person has become infected. There is no doubt as to its value, and, while successful results have also been secured with other forms of antitoxin or serum, this treatment is yet in its early stage, and there are many questions connected with the subject which are yet to be settled.

The above information is presented not only as a short account of the different forms of bacteria and their action upon the human system and the protection the body affords in dealing with these organisms and the theory of the serum or antitoxin treatment, but also to warn against the indiscriminate use of these agents in the hands of unscrupulous or incompetent persons who often suggest this form of treatment to mask the use of worthless and dangerous products. This occurs particularly in connection with

tuberculosis. *There is no serum, antitoxin or vaccine yet produced which is of any practical value in the treatment of this disease, and any agent advertised for this purpose should be carefully avoided; besides, any form of antitoxin treatment should be accepted only upon the recommendation of a reputable physician who is competent to decide when this remedy should be used and where a safe and proper supply can be obtained.*

While this article has dealt with what are known as "pathogenic" organisms, i. e., those which produce infectious diseases, the greater number of germs with which we constantly come in contact are not of this order, but are, as a rule, harmless, and in some instances necessary to our well being.

In conclusion, it must be said that we can go far to aid in our individual protection against danger of infection by maintaining good health, for in this way the blood and the tissues of the body are far better enabled to deal with invading bacteria.

Salesmanship

F. W. Stelzel, District Commercial Agent, Milwaukee

Broadly speaking, every individual is a salesman. This statement may appear a little strange, but should you analyze carefully the many and varied occupations in which a man engages, you will find entering into the performance and completion of these occupations, the same fundamental principles, the requirement of the same functions.

The different kinds of salesmen that you meet, however, vary as much as the personal appearance of the individuals themselves. Each one in the pursuit of his goal uses methods peculiar to himself and others which he has learned are advantageous or particularly adaptable for the vocation he chooses; the proper application of these methods, combined with his own personality, will determine the degree of success that he will have.

The art of selling is on a higher plane by far than it was a number of years ago, and has undergone so many changes during the last ten years, that we must give an entirely different definition to the word "salesmanship" than that which might have been applied formerly. A salesman now must be regarded as a better equipped and cultured individual than his brother "the drummer," just the same as we may distinguish between a statesman and a politician.

What then is salesmanship? To this question you can find many answers; in fact, should you ask fifty men who have sold merchandise for many years, you would get fifty interpretations of the art.

One man says: "Salesmanship is that quality in man, partly inherent, partly acquired, whereby he is able successfully to introduce to, interest in, and sell to a prospective customer any article or commodity."

Another says: "Salesmanship is that quality in a salesman which enables him within the shortest space of time to place in possession of his customer the greatest amount of satisfactory merchandise, and in the coffers of his employers the greatest amount of profits; while at the same time preserving the lasting respect and good will of his customer."

A third offers the following: "Salesmanship is the art of inducing persons by argument (written, printed or personal), to avail themselves of certain things by purchase or exchange. It consists in employing methods to educate individuals into investing by bringing before them



EFFECTS OF STORM IN OHIO.

A. T. & T. Detroit-Cincinnati lead at Mor-timer, near Findlay.

such forceful and honest argumentation that to resist would be a moral impossibility."

From the above you will note that a salesman's primary object is to render such satisfactory service in every respect that the customer does not merely become a customer for one single purchase, but will be inclined, and of necessity, forced to come back for future purchases.

Since it has been reduced to a science, salesmanship should be regarded among the highest and noblest of occupations, just the same as the profession of law or of medicine. That it is destined to play an important part in the commercial world can be seen from the fact that schools have been established teaching the principles which underlie successful salesmanship, and of late text books have been written on the subject, and classes formed in our business colleges so as properly to equip the young man for this vocation.

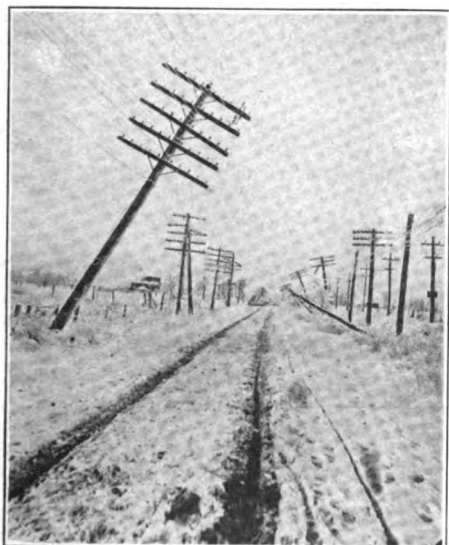
Whether a man is a born salesman, or not, makes very little difference; the fact remains that every individual, selling either his services, or a commodity, can materially improve himself by careful study and training so that he will become more useful and profitable to himself and his employer. His whole success depends a good deal upon these three factors: His natural ability, his *self improvement*, and his capacity for hard work.

Those who are endowed by nature with some of the qualifications so essential to successful salesmanship are indeed fortunate; they have an excellent start and need only to perfect themselves and become more efficient through study and practice.

But those not so gifted should realize the importance of self improvement; should feel the necessity of constantly reading and studying all subjects pertaining to the art of selling, in order to make not only greater and better sales, but also to win promotion in competition with other more gifted brother salesmen.

The game of selling is a difficult one where many salesmen are in the field, and each man's record is scrutinized carefully by the sales manager when he makes his weekly comparison.

If an employee lacks the knowledge necessary for the proper performance of the duties assigned to him, and consequently renders inferior services by neglecting to improve himself, the Company's standing is lowered among its customers and therefore must suffer by the retention of such an employee.



EFFECTS OF STORM IN OHIO.

A. T. & T. Detroit-Cincinnati lead near Findlay.

It requires a study of yourself in order to determine where you are either weak or strong; which qualities stand out prominently and which need to be developed. This study of one's self some writers term "introspection." While you may pay little heed to those qualities of yours, which, by nature, are strong, or which have unconsciously been strengthened, you must be perfectly frank in admitting to yourself your weak points. One should be fair and acknowledge any deficiencies which he may have, so that he can direct his efforts towards developing them, remembering always that he cannot accomplish much in a week or a month; it often takes years to perfect qualities of mind and character.

Ask yourself if you have the required courage to be a salesman, whether you possess persistency, ambition, tact, initiative, common sense and enthusiasm. Ask yourself, also, if you have a complete knowledge of the thing you are selling and can impart to your customer this knowledge so thoroughly that he would be impressed with the fact that his business would suffer should he go without it.

If you cannot get him to imagine all this as well as the profits in dollars and cents that he can derive by its acquisition, the chances are he will corner you and you will lose the sale.

There was a time when salesmen were wont to put in one-fourth of their time at their work and the other three-fourths in demonstrating how fast they could get rid of their expense account. These conditions within the last few years have materially changed and the salesman now who wants to meet with success must labor to the full limit of his powers. In order to do this he must love his work intensely until he has aroused within him that interest and enthusiasm which lifts his work from commonplace drudgery and spurs him on to unceasing effort and industry.

"He profits most who serves best."

Cut'over at Ishpeming

On January 31st at 10:15 p. m. the final cut'over of 110 lines at the Ishpeming exchange of the Michigan State Telephone Company was successfully made.

This cut'over was the outcome of the acquisition of the property and business of the Marquette County Telephone Company. The No. 3 board at the old Michigan State exchange was discontinued and the lines cut over to the Marquette County board, which had been thoroughly overhauled by the equipment department under supervision of Installer P. E. Herr.

The preparations were made and necessary switchboard work done under the supervision of Installer Herr, while the main frame work was done by Rackman Schaeffer, under the supervision of Foreman L. Green of the construction department.

The outside plant at this exchange has also been rebuilt, and the duplicate toll wire and cable plants formerly owned by the Marquette County Telephone Company have been removed. The substations have all been wired according to approved specifications, giving the Ishpeming exchange a first-class up-to-date telephone plant.

Largest Toll Exchange

The largest telephone toll exchange in the world was cut into service by the American Telephone and Telegraph Company in New York on the night of January 24th. The exchange is located in the New York Telephone Company's new building at 24 Walker street.

Farewell Banquet for L. N. Whitney

Before Mr. Whitney left Indiana for his new position in New England, the men who had been closely associated with him in Indiana gave him a farewell banquet at the Hotel Severin on the evening of February 1st. The following were present: J. W. Stickney, A. T. Van Laer, a brother-in-law of Mr. Stickney; C. M. Nesbitt, W. R. Hirst, J. L. Wayne, B. D. Wilber, Frank Wampler, D. H. Whitham, W. B. Thomas, H. F. Hill, Jr., J. P. Hays, C. L. Sawyer, A. D. Lewis, R. E. Guild, C. A. Cora, A. R. Henry, G. A. Breece, G. A. Boyle, E. J. Farrell, Harry Eudaily, J. R. Ruddick, H. B. Coldwell, C. F. Pohlman, Guy Green, L. J. McMaster, W. G. Allen, V. N. Gregg, B. G. Halstead and E. L. Hamlin.

The orchestra furnished good music, interspersed with songs. When old time popular tunes were played the boys were generally on hand with parodies so worded as to show their real appreciation of the former "boss" and to recall amusing incidents in connection with his ten years' service as superintendent and general manager for Indiana.

Mr. Wampler as master of ceremonies was at his best and between songs and music he called upon each one present. Some responded with songs, others with stories, and others made short speeches.

Mr. Whitney made a brief farewell speech, thanking the men for their loyalty and support during the time he had been associated with them. Mr. Wampler then rose and after talking briefly, turned, and taking Mr. Whitney's hand, on behalf of all employees of the Central Union Telephone Company in Indiana wished him health, happiness and prosperity in his new field of labor.

Scientist Examines Beetle

Professor B. W. Kunkel of the department of biology, Beloit College, Beloit, Wis., is now making an investigation into the characteristics of a "lead-eating" beetle sent to him by the Chicago Telephone Company.

The specimen was found recently in a telephone fuse in the Chicago stockyards district by an engineer of the Chicago Telephone Company. The fuse had been cut but the lineman who found it was unable to determine the cause so he turned it over to an engineer for examination. In the fuse were found this beetle and two larvae forms. Close inspection showed that the fuse-wire had been bored through bit by bit. The little bug was watched for several days in a glass jar where he had been caged with the fuse and it was observed that he attacked only the metal parts and none of the fibre covering of the fuse.

Particular value is attached to this find because it is one of the very few instances in which the beetle has been caught almost in the act. It has at previous times forced the telephone company to give it some attention because of the damage it has done to fuses and even to telephone cable. It is said to be a miniature form of the beetle *Dermestes Vulpinus* belonging to the family *Dermestidae*.

Professor Kunkel has been asked to make a microscopic examination of its mandibles or jaws in order that the manner in which it attacks lead may be determined. There are indications which lead to the belief that the beetle bores round and round in a sort of spiral. Recently a number of larvae were found within a small hole that had been bored into a telephone pole. To make this little

nest, however, the parent bug had bored a hole which resembled a large nail hole through a small plate of lead in the pole. The surface around this opening was closely examined and found to be irregular as if bored out by some sharp instrument in spiral motion.

In size, the beetle is only about half as large as the ordinary beetle. It could crawl through a large nail hole with ease. Likewise it is easily able to enter the holes in the fuse sheath which are left to allow for air expansion. When the insects enter they cut up the asbestos packing around the fuse and finally cut the fuse itself. The fact that it seems to have a fondness for attacking metal makes the beetle unfamiliar to scientists and the result of Professor Kunkel's examinations will be awaited with much interest.

Mr. Hibbard on Oakland Exchange

The editor of the BELL TELEPHONE NEWS has received a letter from A. S. Hibbard, former general manager of the Chicago Telephone Company, which adds two interesting items to the history of the Oakland exchange, which appeared in the January issue. Mr. Hibbard said:

"The article in the January number of THE NEWS descriptive of the Oakland office, Chicago, recalls two additional important developments in telephone history directly connected with that exchange.

"I remember in 1891 being shown lamp signals used in connection with Oakland-Main trunk lines to indicate when a trunk had been released by the A operator, thus giving the disconnect signal. I think it will be found that this was the very first use of electric lamps of any kind as signals on telephone lines.

"It appears that in 1886 an electric lamp had been suggested by Mr. J. J. O'Connell as a means of giving a particular signal on a burglar alarm circuit, and this signal was installed by Mr. O'Connell under direction of Mr. Sunny, who was then superintendent of the Chicago Telephone Company. Later, under the direction of Mr. C. H. Wilson, general manager of the company, lamp signals were developed and installed on Oakland-Main trunk lines by Mr. O'Connell, so that the Oakland office is probably to be accredited with the first signals of this character.

"Mr. Wilson tells me that the first vitrified pipe used in Chicago as an underground cable conduit was installed from Oakland office across the open square to replace a heavy pole line. This was during 1888 or 1889, and was probably the first use of vitrified pipe in telephone conduits.

"In the history of the Oakland office, therefore, may be written these two important steps in the development of telephone engineering."

Wireless Telephone Experiments

William Marconi, inventor of the wireless telegraph, is still working on the problem of wireless telephony. In a recent interview in London he said:

"At present the first call is to push on with wireless telephony. I am now aiming particularly at obtaining a distinctly audible message, which is really more valuable than 'spectacular' calls over long distances. I have been able to communicate quite easily and clearly at 100 miles distance, using ordinary receivers and apparatus very much like the usual telephone. The difficulty lies with the transmitter, which is very heavy and needs two men to carry it."

Buffalo Building Opened

On the evening of Monday, February 2nd, the Honorable Louis P. Fuhrmann, Mayor of the city of Buffalo, N. Y., stood on a platform that had been erected on the sixth floor of the Telephone Building at Buffalo, and spoke by telephone to Lieutenant Governor Fitzgerald of Colorado, at Denver, 1,700 miles away. Mayor Fuhrmann's talk was incident to the dedication ceremonies of the Telephone Building, the new Buffalo home of the New York Telephone Company.

Three years ago the Buffalo newspaper advertisements of the New York Telephone Company announced that \$3,000,000 would be used to improve the outside plant of the company and in erecting a skyscraping home for the Bell System of that city. The company has not only made good on its advertised promises of three years ago, but its improvements in Buffalo have been so extensive that the original appropriation was increased to \$4,500,000.

The Telephone Building typifies that goal of the builder's art, the combination of beauty and utility. It is sixteen stories, 228 feet in height and occupies a site 77 by 185 feet at the southeast corner of Church and Franklin streets.

Dedication Day.

At eight-thirty o'clock on the evening of February 2nd, Mayor Fuhrmann was escorted into the big Reception Hall. He was accompanied by the heads of the city and county departments, the members of the common council, H. A. Meldrum, president of the Buffalo Chamber of Commerce, and by many of the prominent business men of the city. Following the opening address by C. A. Spaulding, division commercial manager of the New York Telephone Company, Mayor Fuhrmann picked up the receiver of a telephone that was located in full view of all the guests, and in an instant he was sending the good wishes of one half million Buffalonians out across 1,700 miles of space to the listening ear of Lieutenant Governor Fitzgerald of Colorado at Denver.



MAYOR FUHRMAN, OF BUFFALO (AT RIGHT), TALKING FROM BUFFALO TO DENVER AT OPENING OF NEW BUFFALO BUILDING. PRESIDENT MELDRUM OF CHAMBER OF COMMERCE AT LEFT.



TELEPHONE BUILDING, BUFFALO, N. Y., JUST COMPLETED BY NEW YORK TELEPHONE COMPANY.

The connection was established by way of Detroit, Chicago and Omaha and covered part of the proposed transcontinental route. So near to perfect was the transmission that Mayor Fuhrmann spoke in only an ordinary tone and had no difficulty in making himself understood. At the close of the Mayor's Denver talk, H. A. Meldrum of the Buffalo Chamber of Commerce asked and received permission to talk to his sister at Denver.

The Buffalo-Denver connection was established under the supervision of A. W. Drake, assistant general superintendent of plant of the American Telephone and Telegraph Company, and L. R. Jenney, division plant superintendent of the same company.

The committee responsible for the success of Bell Week was composed of District Manager R. J. Wollmuth and Division Advertising Manager G. W. Billings, but the entire educational plan has since been placed in the hands of a reception secretary, Helen Ahern, formerly of the commercial department of Buffalo.

Employees' Educational Course

In line with the educational course which was printed in pamphlet form, as a supplement to the BELL TELEPHONE NEWS, forty-four employees' plant meetings were held during the year 1913 by the Wisconsin Division officials.

These meetings were in addition to the local meetings, and were held at various exchanges in each district. They included every employe on the regular plant pay roll.

At these meetings, all plant specifications, the above mentioned supplement, etc., and all plant routine and classifications were taken up and discussed.

As the result of these meetings was very satisfactory, it was decided to continue this practice during the year 1914,

and the following meetings were held during January:

At Burlington January 12th. This meeting was attended by division and district plant officials from Milwaukee, and managers and plant forces from Burlington, Delavan, Lake Geneva and Genoa Junction.

The meeting held at Milwaukee, Grand office, January 19th, was attended by division and district plant officials, and Milwaukee line and cable forces.

The meeting held at Racine exchange January 26th was attended by division and district plant officials from Milwaukee and managers and plant forces from Racine and South Milwaukee.

The meeting held at Kenosha exchange January 28th was attended by division and district plant officials from Milwaukee, and the Kenosha exchange plant force.

Telephone Helps Opera

The general use of the telephone is given by Jose Segura-Tallien as a reason for the great increase of operatic timbre in American voices. Segura-Tallien is a baritone with the National Grand Opera Company of Canada. He said:

"The very hustle and bustle of modern life, especially as I find it in America, makes concise utterance the more imperative. Even the least cultivated of clerks, who in the press of his duties must call up the warehouse or the storage rooms, and not lose time in making himself understood at the other end of the wire, finds that he may not neglect the final consonant, that careless elision and slurring will only redound to his final elimination in a business whose wheels are finely geared and whose system is perfection to the point of saving seconds as well as cents.

"It is for this reason that I say opera is the direct beneficiary of the telephone and the transmitter is a potent factor in that realm, for deliberate, easy flowing tones are rapidly supplanting slovenly and throaty speech, and labial and lingual muscles of the throat are brought into unwonted use in efforts to make speaking more perfect. Thus is tone production as well as enunciation forwarded, and whether in business office, with the faults of hurried talk corrected by the condition of clear speech imposed by the telephone, or in the home, where now the housewife does most of her shopping via the telephone, the value of distinct speech is, in a general, persuasive, almost instinctive manner, but with a certainty that is solar in its surety, being impressed on the growing generation.

"Opera draws its material from many sources, and what an influence the telephone is to the prospective recruits of opera in both the choral and individual phases of the interpretation of song where a story is to be projected by song should be plainly apparent.

"You know how pleasant the learning is when it is not done by rote or rule. Therefore, what the technic of teachers of elocution and diction will never be able to accomplish, the telephone is doing for humanity in that subtle, strategic manner which really makes every 'phone talker his own instructor in the vocal qualities of resonance, resilience and rapport—in other words, in the giving of proper orthographical and phonetic values to words and sentences and in the infusion of the magnetism of personality into the speaking voice."

BELL·TELEPHONE·NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, President
 A. BURT, Vice President
 W. I. MIENER, Secretary
 C. E. MOSELEY, Treasurer
 L. G. RICHARDSON, General Counsel
 B. S. GARVEY, General Auditor
 J. G. WRAY, Chief Engineer
 CLIFFORD ARBICK, Manager Publicity Department

H. F. HILL, General Manager, Chicago, Ill.
 E. A. REED, General Manager, Columbus, Ohio
 H. O. SEYMOUR, General Manager, Milwaukee, Wis.
 J. W. STICKNEY, General Manager, Indianapolis, Ind.
 A. VON SCHLEGEL, General Manager, Detroit, Mich.
 H. H. HENRY, Supply Agent

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

MARCH, 1914.

The "Silent" Telephone

The right of telephone companies to maintain "silent" telephones has been upheld by the Railroad Commission of Wisconsin.

The silent telephone is simply one which is in service in all respects, but is not listed in the directory. The effect of such an arrangement is, of course, to give the "silent" subscriber any outgoing service he desires and limits the use of his instrument for incoming calls to those to whom he chooses to tell his telephone number.

A complaint against this sort of service was filed by a Milwaukee subscriber and the Railroad Commission ordered a general investigation. It was disclosed that there were 143 telephones in service in this way without directory listings. The commission, after concluding the inquiry, announced that it could find no grounds upon which the practice could be condemned.

"The whole situation," says the commission, "appears to be one of whether the action of the individual who has the silent number service, in giving his number to his friends or acquaintances and withholding it from the general public causes a discrimination by reason of which the telephone company should be ordered to refuse the silent number service. There is some element of discrimination here, but it seems to be rather a case for the individual to determine for himself the parties whom he wishes to have call him, just as he would determine for himself what parties he would speak to if anyone should call him."

Ounces of Prevention

In China, it is said, a physician is employed to keep his patient in good health. The minute the patient falls sick the physician's pay stops.

Why not? Isn't it better to keep well than get sick and have to be cured?

In a practical way, this idea was developed by Mr. J. P. BRENNAN in his interesting paper on "Daily Plant Maintenance," printed in the January issue of this publication. The midwinter season, through which we are now passing, is everywhere testing the thoroughness of the maintenance on telephone lines during the past year. Mr. BRENNAN's paper discussed thoroughly the little ounces of prevention which may be applied by the maintenance men throughout the year. He might have gone further and remarked that it is much less pleasant to be routed out of a warm bed in February to go out into a freezing night to hunt for trouble on a toll line, than it is to add a few extra strokes here and there during a summer repair trip.

The Chinese idea is a good one and should prevail in telephone maintenance work.

The Office Bore

Excavation of an apothecary's shop in the ruins of Pompeii brought to light a sign reading: "*Otiostis non est locus; discede morator.*" We are a little rusty in our Latin, but venture a translation something like the following: "This is not a place for loafers; depart without delay."—Which goes to show that the office bore is an institution hoary with age and will always be with us. Therefore it may be said that all we can do is to try our best to mitigate the evil.

We all know the office bore. He is usually friendly to the point of effusiveness. He is blessed with an unlimited supply of small talk and we are correspondingly cursed with the irresistible continuousness of his speech. He has read all the morning papers and is prepared to comment at length on all the vital or trivial questions of public policy or private morals which may have been discussed therein. In our own affairs he takes an acute and intimate interest and his suggestions in our behalf are actuated by the most kindly intentions, however impossible of application they may be. He means to be our benign genius. We must give him credit for that—he knows we must and therein he is most foxy. Under such emanations of good will we cannot be otherwise than genial and polite. If in a fit of hurry, we treat him with neglect he is likely to leave us in sadness and then call us by telephone in a few moments to continue the interrupted Mexican discussion.

The Pompeian apothecary's plan may be the best one. Our suggestion would be to paint the sign in the original Latin, as above. The office bore's attempt to translate it and the inevitable question as to its meaning which he will be led to ask, may furnish the opportunity to convey the truth which our politeness has hitherto deterred us from offering him in plain, direct English.

Courtesy as a Business Asset

When BEN FRANKLIN, or somebody 'way back there, said that "virtue is its own reward," he did not mean that virtue is necessarily its own sole reward.

That courtesy is one of the cardinal virtues would not be denied by any school of morals or philosophy, and instances continue to multiply to prove that courtesy is productive of substantial rewards other than itself and that, conversely, the lack of it is productive of proportionate punishments.

A large textile house in New York City recently lost a \$3,500 order through a display of bad telephone manners on the part of the house switchboard operator. The buyer called up rather early in the business morning and asked to speak to the manager. The girl had evidently been instructed to take the names of persons calling, but had not been told how to do it. Instead of asking, "May I have your name?" or "Who is speaking, please?" she demanded sharply, "Who are you?" To this the buyer answered: "I'm a man who is through buying from your house as long as you are there." He said that he would not ask her discharge, but would buy somewhere else until the house got a girl who knew that "the voice with the smile wins."

Again—The Operator

It has become, we might say, almost an old story to tell about the heroism of telephone operators. This should not deter us from giving full credit to an intelligent and loyal operator at Piedmont, Md.

MISS ANNA SWACH was on duty at the Piedmont board in the early morning of January 15th. A train dispatcher notified her that the West Virginia Pulp and Paper Company's big dam on Stony River was crumbling. Miss SWACH first called all her subscribers, then notified other nearby towns. Everybody escaped. Fortunately, the flood largely spent itself on waste land above Piedmont and little damage was done.

What's the Use?

The manager of a rural telephone system told the delegates at the Wisconsin Telephone Association meeting last month something about his trouble in operating one line on which were forty-one rural telephones.

These troubles need not be retold. They may just as easily be imagined. Yet, the subscribers on that line preferred to worry with that kind of service rather than accept a small increase in the rate.

Party Line Talks

Declaring that unnecessary, lengthy conversations over telephones on party lines resulted in unsatisfactory service, the Board of Trade of Providence, R. I., passed a resolution requesting that a five-minute time limit be set on conversation.

District and Division Collection Rating

DECEMBER, 1913.

	Total charges.	Total credits.	Total unpaid Dec. 31.	Pct. credits to total chgs.	Pct. cash col. to final accts.	Stations.
1. Wisconsin Co., Appleton District.....	\$ 65,942	\$ 64,632	\$ 1,910	97.1	39.5	27,332
2. Wisconsin Co., Madison District.....	39,937	38,234	1,703	95.7	32.9	16,686
3. C. U. Co. (Indiana), Southern Dist..	42,721	40,636	2,091	95.1	26.5	19,200
4. C. U. Co., Columbus District.....	55,182	51,627	3,555	93.5	10.9	22,681
5. Wisconsin Co., Milwaukee District....	150,580	139,137	11,443	92.4	40.5	63,833
6. Michigan Co., Marquette District....	39,731	36,193	3,538	91	44.1	15,463
7. Wisconsin Co., Janesville District....	11,901	10,792	1,109	90.6	32.6	4,646
8. C. U. Co. (Indiana), Northern Dist..	60,161	54,006	6,155	89.8	22.7	26,173
9. C. U. Co., Champaign District.....	6,357	5,704	653	89.7	24.4	2,432
10. Michigan Co., Detroit District.....	355,247	314,922	40,325	88.6	29.8	83,267
11. Wisconsin Co., Eau Claire District....	36,446	32,308	4,137	88.6	18.3	13,828
12. C. U. Co., Chillicothe District.....	34,807	30,768	4,099	88.2	32.3	19,201
13. C. U. Co., Centalla District.....	13,387	11,699	1,688	87.4	22.1	5,223
14. Chicago Co., Blue Island District.....	11,149	9,710	1,439	87.1	42.3	3,530
15. C. U. Co., Akron District.....	67,406	58,548	8,858	86.9	27.3	24,393
16. Chicago Co., Joliet District.....	32,157	27,934	4,223	86.8	26.1	9,905
17. Chicago Co., Gary District.....	11,250	9,711	1,539	86.3	18.9	2,255
18. Chicago Co., Aurora District.....	20,347	17,537	2,810	86.2	46	6,954
19. C. U. Co., Jacksonville District.....	7,442	6,399	1,043	86	34.6	4,313
20. Chicago Co., Chicago Heights Dist..	8,854	7,509	1,345	84.8	32.7	2,613
21. Michigan Co., Grand Rapids District..	86,971	73,696	13,275	84.7	17.7	42,332
22. Chicago Co., City Division.....	1,574,697	1,326,861	247,836	84.2	33.2	352,713
23. C. U. Co., Dayton District.....	63,066	53,167	9,899	84.1	15.8	23,783
24. Michigan Co., Saginaw District.....	51,183	42,869	8,314	83.7	12.5	21,459
25. Chicago Co., Hammond District.....	22,170	18,532	3,638	83.6	27.6	5,970
26. Chicago Co., La Grange District.....	17,727	14,602	3,125	82.4	42.3	5,193
27. C. U. Co., La Salle District.....	7,113	5,853	1,260	82.3	25.9	2,616
28. Chicago Co., Woodstock District.....	10,705	8,759	1,946	81.8	38.4	3,510
29. Chicago Co., Elgin District.....	17,156	13,989	3,167	81.5	33.9	6,162
30. Chicago Co., Oak Park District.....	40,485	32,957	7,528	81.4	41.4	10,280
31. C. U. Co., Toledo District.....	63,039	50,980	12,059	80.9	11.1	24,286
32. Chicago Co., Waukegan District.....	31,636	25,584	6,052	80.9	37.4	7,775
33. Chicago Co., Wheaton District.....	12,336	9,781	2,555	79.3	43.7	3,779
34. C. U. Co. (Indiana), Central District.	95,338	75,111	20,227	78.8	19.4	32,486
35. Chicago Co., Evanston District.....	47,711	37,092	10,619	77.7	38.2	10,173
36. C. U. Co., Rock Island District.....	33,395	25,400	7,995	76	6.4	10,901
37. C. U. Co., Alton District.....	7,552	5,623	1,929	74.5	19.8	3,273
38. C. U. Co., Peoria District.....	60,552	44,924	15,628	74.2	11.5	16,250
39. C. U. Co., Rockford District.....	26,262	19,464	6,798	74.1	7.9	8,090
40. Cleveland Co., Cleveland Division....	146,470	106,759	39,711	73.3	28.1	59,147
41. C. U. Co., Paris District.....	2,712	1,954	758	72.1	15	1,666
42. C. U. Co., Decatur District.....	18,549	13,335	5,214	71.9	6.6	5,686
43. C. U. Co., Quincy District.....	16,839	12,074	4,765	71.7	...	5,471
44. C. U. Co., Galesburg District.....	8,523	6,018	2,505	70.6	8.6	3,542
45. C. U. Co., Springfield District.....	37,046	26,024	11,022	70.3	13.7	10,128
46. C. U. Co., Kankakee District.....	12,876	8,518	4,358	66.1	1	6,284
47. Michigan Co., Eastern District.....	64,955	35,366	29,589	54.4	23.2	30,965
Total.....	\$3,648,067	\$3,062,632	\$585,435	84	....	1,087,803

*Quarterly rental billing.

DIVISION SUMMARY.

Wisconsin Co.	\$ 304,805	\$ 284,503	\$ 20,302	93.3	38.6	126,325
C. U. Co. (Ohio).....	283,500	245,030	38,470	86.4	18.8	114,294
C. U. Co. (Indiana).....	198,220	169,747	28,473	85.6	20.8	77,859
Chicago Co. (City).....	1,574,697	1,326,861	247,836	84.2	33.2	352,713
Michigan Co.	598,087	503,046	95,041	84.1	27.5	193,486
Chicago Co. (Suburban).....	283,683	233,697	49,986	82.4	35.5	78,099
C. U. Co. (Illinois).....	258,605	192,589	66,016	74.6	12.2	85,880
Cleveland Co.	146,470	106,759	39,711	73.3	28.1	59,147
Total.....	\$3,648,067	\$3,062,632	\$585,435	84	....	1,087,803

Exchange Collection Rating.

Exchanges in the Central Group at which collections range from 95 to 100 per cent of the total charges for collection during December, 1913, are given below:

City and State.	Per cent credit.	Stations.
Beaver Dam, Wis.....	100	1,471
Stoughton, Wis.....	100	1,065
Watertown, Wis.....	100	940
Columbus, Wis.....	100	864
Ft. Atkinson, Wis.....	100	814
Baraboo, Wis.....	100	787
Kaukauna, Wis.....	100	459
French Lick, Ind.....	100	438
Jefferson, Wis.....	100	400
Horicon, Wis.....	100	362
Holly, Mich.....	100	283
Kewaunee, Wis.....	100	264
Spencer, Ind.....	100	257
Algoma, Wis.....	100	256
Danville, Ohio.....	100	248
Juneau, Wis.....	100	176
Reed City, Mich.....	100	166
North Freedom, Wis.....	100	144
Rainsboro, Ohio.....	100	144
Princeton, Wis.....	100	135
Hersey, Mich.....	100	111
Wrightstown, Wis.....	100	103
Stephenson, Mich.....	100	82
Brooklyn, Ind.....	100	81
Burnett Junction, Wis.....	100	77
Linden, Ind.....	100	70
Fairland, Ind.....	100	63
Hart, Mich.....	100	54
Scottville, Mich.....	100	51
Little Chute, Wis.....	100	50
Weidman, Mich.....	100	50
Powers, Mich.....	100	43
Greenville, Mich.....	100	38
Niagara, Mich.....	100	34
Wabash, Ind.....	100	29
Richmond, Ind.....	100	24

Humboldt, Mich.....	100	11
South Boardman, Mich.....	100	9
Columbus, Ill.....	100	2
Whitewater, Wis.....	99.8	898
Mancelona, Mich.....	99.6	124
Norway, Mich.....	99.5	254
Lima Center, Wis.....	99.5	75
Washington, Ind.....	99.3	1,564
Waupaca, Wis.....	99.3	502
Berlin, Wis.....	99.3	423
Wayland, Mich.....	99.3	165
Vincennes, Ind.....	99.1	2,561
Manitowoc, Wis.....	99.1	1,519
Omro, Wis.....	99.1	548
Hortonville, Wis.....	99.1	362
Oconto Falls, Wis.....	99.1	117
Appleton, Wis.....	99	2,705
New London, Wis.....	98.9	547
Manilla, Ind.....	98.9	63
Menomonee, Wis.....	98.8	1,215
Mt. Orab, Ohio.....	98.8	14
Amasa, Mich.....	98.8	12
Iron Mountain, Mich.....	98.7	605
Harrisonville, Ohio.....	98.7	51
Boyer City, Mich.....	98.6	407
Gladstone, Mich.....	98.6	331
Sturgeon Bay, Wis.....	98.5	770
Newberry, Mich.....	98.5	112
Logansport, Ind.....	98.5	60
Freeseil, Mich.....	98.5	36
De Pere, Wis.....	98.4	1,053
Florence, Mich.....	98.4	76
Shelby, Mich.....	98.4	33
Prospect, Ohio.....	98.4	16
Standish, Mich.....	98.3	144
Hudson, Wis.....	98.1	570
Manchester, Mich.....	98.1	388
Red Granite, Wis.....	98.1	103
Augusta, Mich.....	98.1	87
Grand Haven, Mich.....	98	677
Piqua, Ohio.....	98	354
Winneconne, Wis.....	98	135
Michiganville, Mich.....	98	24
Champlain, Mich.....	98	22

Crawfordsville, Ind.....	97.9	2,888
Auburn, Ind.....	97.9	1,066
Hartford, Wis.....	97.9	679
Mt. Morris, Mich.....	97.9	99
Green Bay, Wis.....	97.8	5,047
Anderson, Ind.....	97.8	3,211
Cadillac, Mich.....	97.8	558
Mayville, Wis.....	97.8	509
Oshkosh, Wis.....	97.6	4,404
Oconto, Wis.....	97.5	503
Port Washington, Wis.....	97.4	407
Beloit, Wis.....	97.3	1,953
Williamsburg, Mich.....	97.1	126
Newark, Ill.....	97	209
Richmondale, Ohio.....	97	33
Frankfort, Ind.....	96.9	2,131
Stanley, Wis.....	96.9	363
Burlington, Wis.....	96.8	738
Traverse City, Mich.....	96.8	432
Osceola, Ind.....	96.8	154
Boggs town, Ind.....	96.8	89
Shelbyville, Ind.....	96.7	1,995
Allegan, Mich.....	96.7	202
Elk Rapids, Mich.....	96.7	177
Auburn, Mich.....	96.6	97
Holland, Mich.....	96.5	103
Marquette, Mich.....	96.4	1,805
Escanaba, Mich.....	96.4	1,567
Bayfield, Wis.....	96.4	255
Waukesha, Wis.....	96.3	1,870
Otsego, Mich.....	96.1	358
Neenah-Menasha, Wis.....	95.9	1,538
Lancaster, Wis.....	95.9	984
Manistee, Mich.....	95.8	268
Okawville, Ill.....	95.8	1,026
Kewanee, Ill.....	95.7	421
Corliss, Wis.....	95.6	74
Shawana, Wis.....	95.5	433
Lake Linden, Mich.....	95.5	339
Naperville, Ill.....	95.4	507
West Bend, Wis.....	95.4	452
Edwardsville, Ill.....	95.2	1,246
Muskegon, Mich.....	95.2	312
Sulphur Grove, Ohio.....	95.2	47
Fife Lake, Mich.....	95.1	72

Final Account Collection Rating

Exchanges in the Central Group where accounts have been centralized six or more months, that collected 50 per cent. or better of the total subscribers' final bills, as shown on December, 1913, Collection Report:

	Pct. Collected.	No. of Stations.
Champion, Mich.....	100	22
Humboldt, Mich.....	100	11
Hartland, Wis.....	95	166
St. John, Ind.....	90.5	110
Naperville, Ill.....	87.7	507
Hastings, Mich.....	87.5	14
Manitowoc, Wis.....	85.2	1,519
Hampshire, Ill.....	83.3	6
Michiganville, Mich.....	80	24
Lake Geneva, Wis.....	79.8	1,089
Wayland, Mich.....	76.9	165
Holland, Mich.....	75.5	103
St. Martins, Wis.....	75	245
Lisbon, Ill.....	75	127
Grand Haven, Mich.....	72.5	677
Oconomowoc, Wis.....	71.6	642
Genoa Junction, Wis.....	70	230
Peotone, Ill.....	66.6	62
Dyer, Ind.....	66.6	17
Mayville, Wis.....	65	509
Lombard, Ill.....	64.2	247
Sparta, Mich.....	63	297
Geneva, Ill.....	62.9	487
Algonquin, Ill.....	61.2	176
Corliss, Wis.....	61.2	74
Bartlett, Ill.....	60.7	239
Homewood, Ill.....	60.1	214
Oswego, Ill.....	60	308
Lake Forest, Ill.....	59.1	1,178
Winnetka, Ill.....	58.4	1,202
Cedarburg, Wis.....	57.1	194
Plattville, Ill.....	57.1	161
Roselle, Ill.....	57.1	143
New Lenox, Ill.....	54.5	164
Athens, Ohio.....	54.4	651
Glen Ellyn, Ill.....	54.1	411
West Bend, Wis.....	53.1	452
Urbana, Ohio.....	52.2	235
Pt. Washington, Wis.....	52	407
Cuyahoga Falls, O.....	52	207
Newark, Ill.....	51.1	209
Bellfontaine, O.....	51	78
Highland Pk., Ill.....	50.8	1,519
Arlington Hts., Ill.....	50.8	492
No. Crystal Lake, Ill.....	50.2	441
Barberton, Ohio.....	50	55

The Move Was Made

Below is a copy of letter received from a Columbus, Ohio, woman subscriber requesting removal of telephone from one location to another:

Dear sir,
I want my telephone Vo Main 3595
Locatet at 24 1/2 E main moved to 219 North
frunt at as sune as Pasukell
Yours Respeckell

P s I nove the 20

11/20

The New Michigan Central Private Branch Exchange

By Edward A. Hicks, P. B. X. Installer,
Detroit, Mich.

Amid the clanging of bells and the shrieking of the fire whistles, the historic old Michigan Central Railroad Depot at Detroit went up in fire and smoke on the afternoon of December 26, 1913. One look from the top of the new two-million-dollar depot was enough to convince the men who were at work on the telephone equipment for the new building that real speed must be shown to get the new switchboard working in time to give service when required. Only three telephone lines were working from the new private branch exchange at the time of the fire, and the cut-over had been planned to take place a fortnight later, which would have been ample time had not the destruction of the old edifice upset all calculations.

The first train-load of passengers arrived at the new station at 3 p. m., an hour and a half after the fire. Just to show what a real live bunch of good installers could do, a check was made the following day and it was found that 190 lines were installed and giving service. This I consider "some speed."

The new Michigan Central Depot is a fine building. It is constructed of reinforced concrete with a facing of tile and brick, and is a combination of various styles of architecture, with Ionic columns. I dare say there is none like it outside of New York City. It is quite in keeping with the remarkable growth of Detroit.

Our switchboard in this depot is of the special multiple No. 4 type, using No. 10 circuits, having eight operator-positions, and 200 lines, although its ultimate capacity is twelve positions and 1,200 lines. The switchboard is also equipped with forty common-battery central office trunks, and fifty toll and magneto lines, the magneto lines being designed to take care of the traffic over the Michigan Central right of way. Position No. 1 is equipped with universal cord circuits to take care of the long-distance traffic, and the other seven positions are equipped for local or city traffic. It is the largest private branch exchange switchboard in Michigan.

In addition to the switchboard, the main frame has been installed with fourteen bays, an intermediate distributing frame of seven bays and a combination



NEW MICHIGAN CENTRAL DEPOT, DETROIT.

coil and relay rack of two bays. The power plant consists of a set of F-11 lead-lined 50-ampere batteries and a set of E-5 10-ampere batteries for 48-volt transmission on the toll lines, two ringing machines, a power board and a mercury arc rectifier charging set, which are shown in the accompanying photographs.

In addition to the private branch exchange switchboard as described above, a four-position information desk of the modified type will be installed in the ticket office and connected with the central office for giving out train information to the public. Another switchboard will be installed in the legal department and will be connected with the main private branch exchange.

The switchboard in the public pay station, which is located in a room especially designed for the purpose near the main waiting room, is not yet completed—or rather, it would be more accurate to say that it was completed, but had to be altered at the last minute to suit the space assigned to it and the equipment of the Western Union Company. This switchboard will be placed inside a square counter which is constructed entirely of the finest marble. Eight booths are built into the walls of this room. These are constructed of genuine East India mahogany and are equipped with the latest type of folding and receding doors. In

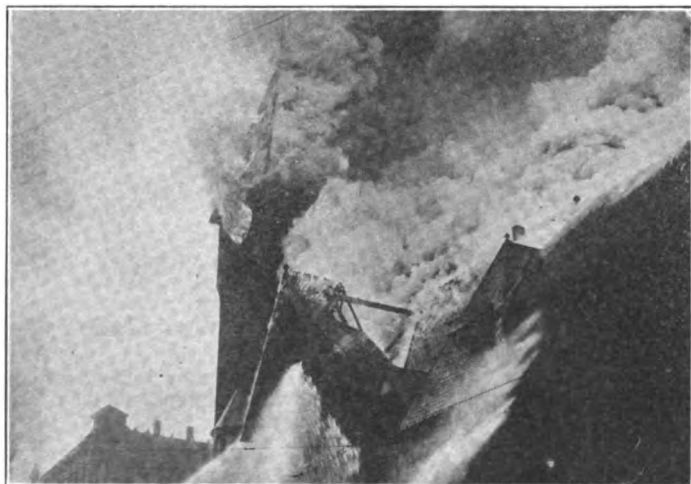
operation these doors are somewhat similar to the ones noticed on the "Pay-As-You-Enter" street cars in Detroit.

The installation of the Michigan Central equipment was started in October, 1913, and was to have been cut into service January 4, 1914, but the fire hastened matters considerably. The installation of the cables throughout the building is second to none. This work required about 1,500 feet of 200-pair lead-covered cable for the main run and a large quantity of smaller sizes for distributing purposes.

The installation was made under the supervision of E. A. Hicks, with a force of about twenty men. A. G. Doyle and Fred Fells installed the power plant. Vernon Smith did most of the circuit work. The other installers were James Wardrop, A. D. Lane, F. Sark, George Mizer, Gus Zimmerman, T. L. Schweir, J. H. Pree and a number of others. The cable work was done under the supervision of Augustus Schneider. Associated with him were the following men: Robert Moore, Harry Tubb, H. Hampson, P. H. Saunders, W. Kelman, E. W. Geer, and Irving Reuter.

Mattie Davidson is chief operator, and her assistants are Blanch McNamara and Louise Windish.

The operating employees gave a good account of themselves in the old building before they were driven out by the fire.



TWO SCENES DURING FIRE WHICH DESTROYED OLD MICHIGAN CENTRAL STATION IN DETROIT.

—Photographs by courtesy of *Detroit News*.

The Goal

By A. J. Peckham, District Manager,
Petoskey, Mich.

The twentieth century is bidding fair to usher in many sweeping changes in social and industrial life and thereby provides for the shattering of old and honored traditions.

This, the students of history will tell us, is an indication of progress, an advance leading to a greater refinement of those conditions which so directly affect us all.

Perhaps one of these changes is indicated by our present idea of the product of a telephone plant as contrasted with our former understanding of it. Not so many years ago, the renting of a telephone station represented the goal of our endeavor and incidently we provided service to that instrument. Today we sell telephone service and install an instrument by the use of which we deliver our product. This idea is aptly and attractively brought out in our advertising and in the literature of telephony.

There is, nevertheless, a natural tendency among those of us who are in telephone work to become so enthralled in watching the machinery work that we forget what the machinery is turning out. This very laudable interest sometimes leads us to believe that the machinery is most excellent and can turn out nothing but good service.

A little meditation, however, shows us that this same machine needs the constant aid of an oiling can called "Supervision," a wrench called "Accuracy," and another tool called "Intelligence," which in itself is made of two parts, namely, "Study" and "Application." Furthermore,



SWITCHBOARD AT MICHIGAN CENTRAL DEPOT, DETROIT.

The chief operator is Martha Davidson, who sits at the desk in the background. Those at the board, beginning at left end, are: Blanche McNamara, the toll operator, Louise Windish, Margaret Carroll, May Kenney and Florence O'Rourke. Other operators on duty at this board at various times are: Alice Blakesley, Belle Nebe, Margaret Richardson, Clara Kenney and Lottie Mitchell, the all-night operator. The subscribers' lines start at the third position.

the machine with all its wheels and cogs will be of absolutely no use without a liberal and continuous supply of motive power called "Energy."

Hence, we may say that our machine is made up of two factors, one known to us as the plant, or, in other words, the physical wheels, and the other the force of

employees, or the human wheels. These factors, with a third, the telephoning public, are the elements which to go to decide what that industrial phenomenon called "Telephone Service" will be. For the sake of illustration we will name the public "Factor No. 1"; the force, "Factor No. 2"; and the plant, "Factor No. 3."

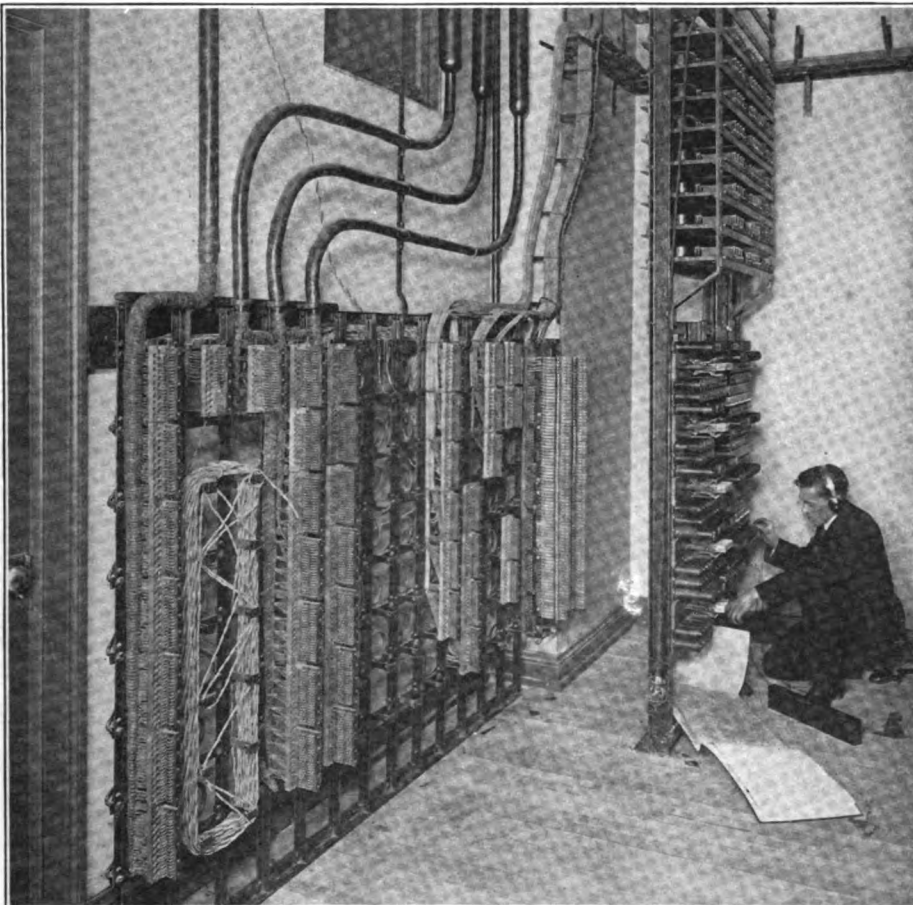
Factor No. 1 finds that it has among its individuals a desire, or more truly, a need for a kind and grade of intercommunication which will conform to the complex conditions of its life. Factor No. 2 appreciates this need and brings into existence Factor No. 3, which it so manipulates that the needs of Factor No. 1 are fulfilled to the mutual and economic advantage of all concerned.

It is really the need of it, then, that makes possible telephone service and it follows that the comfortable existence of at least Factors No. 2 and No. 3 depend directly on the efficiency of this product. Therefore, it may be deduced from the above that each member of the great army of telephone men and women should realize that fundamentally he is working for the same end as all his fellows—namely, service.

This fact applies equally to him who acts as selling agent, to the skilled builder of the plant and to the expert who operates the equipment.

The functions of these three members must be so performed that the needs of the public are fulfilled and that the return is sufficient to make possible a continuous operation. It is obvious, then, that telephone service should be spelled with capital letters and should be the understood reason for every detail of endeavor in connection with the operation of a telephone plant.

Too narrow an interpretation should not be placed upon the meaning of "Telephone Service." It includes not only the promptness, accuracy and reliability with which two people are put into communication, but covers the courtesy with which this action is performed as well as every action which represents any relation between the public and the company. Good service, therefore, means accurate billing, prompt clearing of trouble and



TERMINAL ROOM, MICHIGAN CENTRAL RAILROAD DEPOT EXCHANGE, DETROIT.
Walter Pendergast at work on incoming trunk lines.

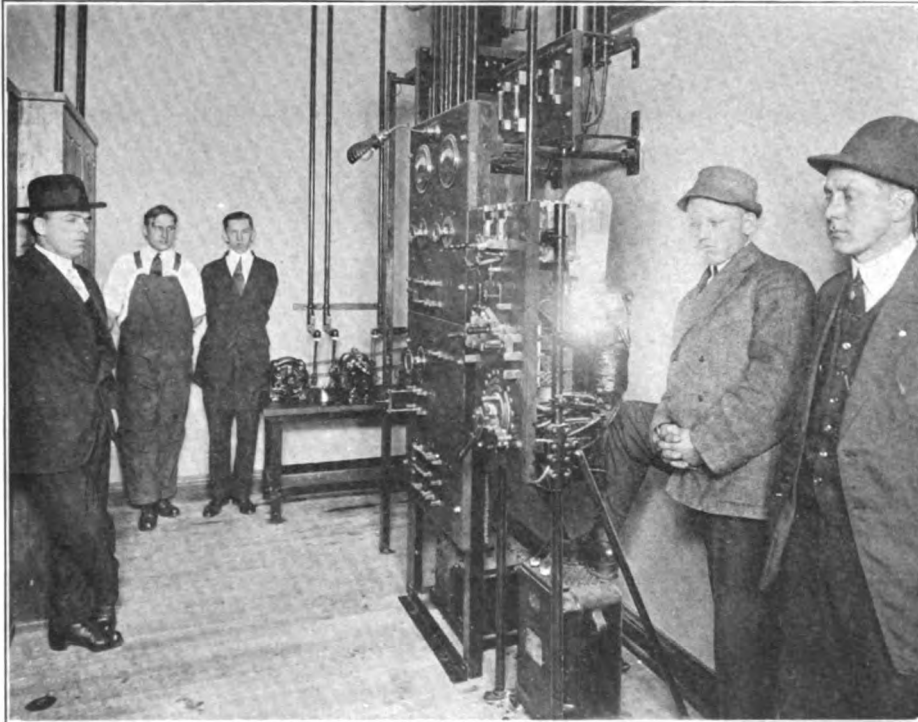
the furnishing of adequate explanations of all details concerning which the subscriber has some misunderstanding. In other words, service enters into every phase of the relationship between the company and its customers.

Such a telephone philosophy means, when put into actual practice, fewer bad toll line joints because the foreman and linemen who are building a toll lead know that they are not only working to complete estimate No. 1,234, but are making possible the intercommunication of thousands of people. It means fewer cases of wrong numbers and kindred errors because they who operate the equipment know that they are actually fur-

Concrete Mixer in Underground Work

In May, 1912, a No. 5 concrete mixer manufactured by the Chicago Concrete Mixer Company was purchased by the Wisconsin Telephone Company for use by the plant department, in connection with underground construction work.

The mixer is fitted with a two horsepower gasoline engine, a mechanically operated side loader and a twenty-eight gallon water tank located on top of the mixer with valve connection for wetting the dry material in the mixer. About four cubic feet of concrete is produced from each mix of the machine.



POWER PLANT AT MICHIGAN CENTRAL DEPOT EXCHANGE, DETROIT.

Left to right: Edward A. Hicks, supervisor; Fred Fells, installer; Walter Pendergast, maintenance man; Andrew Johnson, in charge of outside installers; Mr. Seibert, maintenance man for railroad company.

nishing means for greater convenience and efficiency to all their fellow men. It means fewer bad contracts and fewer hard collections because those who dispose of the product will find the actual need for it and will be expert in studying the use of this product by those who buy it.

To listen to the hum of wheels is pleasant but we should not forget why the wheels are whirling.

Good service to Factor No. 1 by Factors No. 2 and No. 3 will put money in the pockets of Factors No. 1 and No. 2.

Proposes By Telephone

Jeannette Bodkin, a pretty cigarmaker in Findlay, Ohio, had a perfect right to reply to George A. Vogel of Chicago, who proposed over the telephone, "This is so sudden, George." But she didn't. Instead, she said: "You bet," and in just twenty-four minutes she was Mrs. George A. Vogel and back at work again in the cigar factory.

It is said that Vogel has known the young woman for a dozen years, and that every time he came to Findlay he would see her. His friends began chiding him about marrying Miss Bodkin, which resulted in a bet.—*Cleveland News*.

Three men operate the machine, one man acting as foreman, who fills the wheelbarrows with concrete and looks after the operation of the engine, and two men who keep the hopper filled with dry material.

The mixer is guaranteed to make a complete mix in one minute.

This method of mixing the concrete far excels the former way of mixing by hand.

Up to two years ago, the following method was used. The sand and cement were placed on a platform, mixed well dry, and water poured on to form a batter, after which the proper proportion of stone was added. This method required the services of from four to seven men for effectual work which occupied approximately twenty-five minutes' time for a two-bag (cement) mix. Then these men were required to wheel this concrete to the trench, and the platform had to be practically cleared before another mix could be made.

The time consumed in making and disposing of one mix of concrete was about forty minutes; about forty lineal feet of concrete foundation eighteen by four inches could be laid from one mix.

The method of mixing the concrete by hand before the mixer was pur-

chased was similar to the above way, with the exception that the sand and cement were first mixed well, dry, then spread out along the platform or street in trough shape, the stone was then placed on top of this dry cement. Then water was added in sufficient quantity, as two men stationed at each end of the trough turned the concrete with shovels. Three complete turns of the batch was required for a good mix, which took about twenty minutes' time and the services of from five to six men.

Then, as in the former method of mixing on the platform, the concrete was cleared before the next mix was started, as the same men who mixed the concrete were employed to wheel the concrete to the trench.

With the concrete mixer, concrete equal in quantity to the two-bag mix is made in the mixer in eight minutes; at the same time the materials are being mixed the concrete is being conveyed to the trench by other men.

When the work is not ready for the placing of concrete the machine is shut down and the operators at the mixer work in the trench or do other work so that there is no labor lost or unnecessary expense incurred.

By mixing small quantities of material the possibility of wet concrete left on the board starting to set before being used on account of some halt in the progress of the work or an over amount of concrete being mixed, is eliminated.

There is a saving of between five and six dollars a day by the concrete mixer over the old method of mixing the concrete when the mixer is kept steadily at work.

Mexican Company Prospers

In spite of Mexico's serious internal troubles, the Mexican Telephone and Telegraph Company is in a much more favorable position than many other American companies operating in our neighboring republic. While many American-owned mines are closed down the telephone company is permitted to operate, and as a matter of fact, says an article in the *Wall Street Journal*, the necessity of a telephone service is recognized by all factions.

Conditions are far from ideal, however. Earnings at the end of 1913 did not measure up to the figures of the preceding year, although officials of the Mexican company congratulate themselves that they are still in business when so many other enterprises have been compelled to suspend entirely. The Mexican company is Boston managed, and its stock is listed on the Boston Exchange. The 30,000 shares of preferred (par \$10) pay five per cent., and the 60,000 shares of common nothing. The usual semi-annual dividend on the preferred stock was paid in November.

Busy Business Man

"There's law for this and law for that."
The man in business sighed.
"It keeps me guessing where I'm at
And how my hands are tied."

"My great concern today is not
That I may shortly fall,
I have to give my every thought
To keeping out of jail."

"For profits that may comfort me
No longer can I plan,
It's taking all my time to be
A law-abiding man."

"Oh, sorry is the plight I'm in,
I have no path to choose,
The court will nab me if I win,
The sheriff if I lose."

—*Detroit Free Press*.

Underground Cables on Poles

For six months a situation unique to a telephone construction man existed on South Chicago avenue, between Erie avenue and Ninety-fifth street, Chicago. Three heavy underground cables were suspended on stub poles for this length of time while railroad track elevation work was being done. This work has now been completed and a new conduit line is in service.

About two-and-a-half years ago the city engineer notified the Chicago Telephone Company that the telephone equipment on this street would have to be moved at once. The cables in this run are important, consisting of two 200-pair nineteen gauge cables and the composite South Chicago-Hammond toll cable, and it of course became necessary to provide some way to keep them in service. The matter was taken up with the engineer in charge of the track elevation work and arrangements were made to leave the conduit undisturbed until actual excavation was about to begin, as the railroad company had considerable work to do, such as building retaining walls, etc. While the work was in progress the excavation of the old street grade was started. The street was dug up on either side of the conduit line, and service was not interrupted.

The final transfer of the underground cables to the stub poles was accomplished without the usual procedure of cutting. The method used was as follows:

After the stubs were set, the conduit was broken away from the cables. Planks were laid at right angles to the line, one every ten feet and on these the cables were pushed or slid over to the foot of the poles and then raised and suspended on the messenger wire. They remained in this condition six months and gave good service.

In the installation of the new conduit, the plant men under Division Foreman T. H. Carson encountered extreme difficulty. The grade of the street was lowered ten feet and its bottom was nothing but quicksand and water. The entire new line, 1,050 feet in length, was laid in water. This required extra sheeting and the use of power pumps. The work was finally completed, however, in a satisfactory manner in spite of the difficulties.

Annual Bowling Dinner

The annual dinner of the Bell Telephone Bowling League of Chicago will be held at the Sherman House on the night of Thursday, April 16th. The banquet committee, consisting of W. E. Conrad, chairman; H. N. Foster, H. M. Webber, Wallace Campbell and Verne Ray, has provided a good substantial menu, which will be served at about 6:30 p. m. The price of the tickets has been fixed at \$1.50 per plate to members of the league and \$2 to other employees. Mr. Hill will preside at the speech-making and distribution of prizes immediately following the banquet.

The entertainment committee, of which A. P. Allen is chairman, has written a roaring musical farce in two acts, bearing on telephone and bowling affairs, with characters (mis) representing well known employees. The Glee Club will furnish the chorus, while all the company's well known comedians will participate in the dramatic features.

This show will be given on a temporary stage erected in the banquet hall, as was done two years ago. The curtain will rise at 9 p. m. Purdy's orchestra has been engaged.

Chicago Telephone Company's City Exchanges.

VIII—Yards

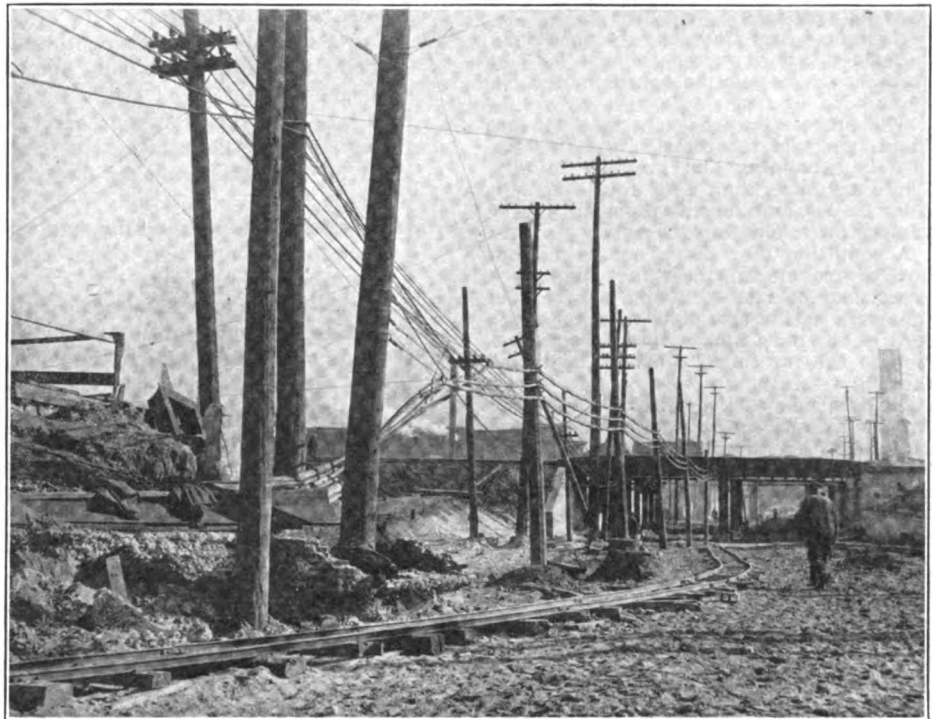
By S. L. Sherman, Wire Chief at Yards.

A study of the development of the packing industry, perhaps more so than of any other, shows that its growth is dependent, to a large extent, upon the increasing means of communication. The growth of Yards office is therefore typical of the growth of this industry, as it is located in the packing district.

In the early eighties, when most of us, who are now active in the telephone work, were being trundled around in perambulators, the Yards exchange was located at Forty-third and Centre avenue, in the heart of "Packingtown." It consisted of several positions of what is

A remarkable fact, illustrating the increasing development in the use of the telephone, is that the increase in the number of stations in Yards in the last twenty months has been more than the growth from 1880 to 1900. Originally designed to care for the telephone needs of the stock yards, the office now has more than 14,000 subscribers in the territory. In the last five years a large manufacturing industry has developed in what is called "The Central Manufacturing District," and an increasing number of firms have installed private branch exchanges in this vicinity.

At the present time the office is provided with two units, Yards and Drover,



UNDERGROUND CABLE ON POLES ON SOUTH CHICAGO AVENUE, CHICAGO.

known in telephone history as the "Gilliland" board. This board as may be imagined was of the crudest type, and practically all of the functions which are now carried on automatically were performed laboriously and painfully. This board was "manned" by operators of the male sex, and report hath it that they were by no means as polite and patient as our young lady operators of to-day, as they were ready at all times to give the subscriber as good as he sent over the wire.

It was in 1888 that the office was moved to the Live Stock Exchange building where a more modern board was installed of the magneto multiple type and young lady operators were employed. The service at that time and for a number of years following consisted of grounded and copper metallic individual lines; the ingenious party line not yet having been evolved.

On January 22, 1901, the exchange was transferred to the present location. There were about 1,200 lines involved in the cut-over. This work was done over Saturday night and Sunday, service being restored Monday morning.

the Yards unit being one of the older 7,500-multiple type and the Drover a new multiple board of 10,500 capacity.

The power plant has recently been enlarged and modern apparatus has been installed.

An interesting feature of the Yards service is the leased telegraph wires to the packers. This service is furnished by the American Telephone and Telegraph Company via the station at Morrell Park at Forty-seventh and Kedzie avenue, through Yards office to the various telegraph stations in Packingtown. In order to insure a quick "patch" in case of a failure, all of the lines are looped through a spring-jack board in the Yards office, and in the event of a break-down on either side of this point, connections are made so as to bridge out the defective wire.

The outside plant in Yards embraces a considerable territory, the more densely settled being thoroughly cabled, and the open-wire distribution used in the sparsely settled neighborhoods. One of the longest subscriber's cables in the city extends as far west as Fortieth avenue and Fifty-first street from Yards office at Forty-

first and Union avenue, a distance of about six miles. This cable happens to be entirely filled and as a considerable portion of its length is aerial, it is continually being peppered by disappointed Nimrods. A portion of this cable was formerly used as the old South-Yards trunk cable and after being in use for several years for that purpose, it was taken down and installed in its present location, and is giving good service to-day.

Swift and Company's board is located in the Yards building—a six position No. 35 private branch exchange, equipped with call circuits, and regular out trunk multiple, giving direct service to other exchanges. The terminals are carried from the various points in the Yards, through cables to this board. The other large packing boards are as follows:

Armour and Company—9 positions.

Morris and Company—4 positions.

Sulzberger and Sons—4 positions.

Union Stock Yards and Transit Company—4 positions.

Hammond and Company—4 positions.

Besides this a number of smaller concerns have one-position boards of the No. 30 and No. 31 type.

The private branch exchange is in use in all parts of the district and this feature is expanding and growing rapidly. There are more than 2,000 four-party circuits in use and several thousand of the various other classes of service.

A condition that has given us a great deal of trouble and cost the company a great deal of money is the bisection of the north half of this district by the south fork of the old Chicago river, a combination of the far famed Bubbly Creek and the Thirty-ninth street sewer. At thirty-eighth street, Thirty-fifth street, and Archer avenue, our underground cables dip under this so-called stream and as it is comparatively shallow, unless the tunnel is laid twelve or fifteen feet below the bed of the river we are in danger of being gouged by dredges. This happened at Archer avenue about a year ago, and beside completely crippling the district west of this point, disabled a one-hundred-pair toll cable between Morrell Park and Quincy exchange. Repairs were completed in less than twenty-four hours by the South construction department. This bad condition recently necessitated the pulling out of a 400-pair cable at Thirty-eighth street and the relaying, at a much lower depth, of another cable of the same size. Some day we will get real peeved and send the janitor over with a shovel and fill up this pestiferous mud hole.

The increasing number of stations and the heavy cost of the long cables will, within a few years, demand that another exchange be built in the west end of the district, and one of the last of the old offices which formerly covered immense districts will have, territorially at least, passed into history.

Operators Put Out Fire

Operators in the Michigan State Telephone Company's exchange at Fenton, Mich., showed quick intelligence in a recent emergency and probably saved the exchange and the building it occupies from destruction.

Some edges of wall paper around a stove-pipe hole in the operating room took fire. The operators made quick use of the fire extinguishers with which the office is provided and the blaze was subdued with only the loss of a few inches of wall paper.

BELL TELEPHONE COMPANY, OF ILLINOIS.

INSTRUCTIONS TO SUBSCRIBERS.

FIRST—To call the exchange office to which your wire runs—push up the knob underneath the call bell—hold it up while you give *one* or *two* turns to the crank (which is enough). If everything is right your own bell will ring, too.

SECOND—The exchange office will answer by a short ring at your bell. Then state your name and that of the party you want; unhooking telephone while you talk. Hang up your telephone, and wait till notified by long ring that your party is being rung up. If he is in his office and answers the call, you will find him at other end of the line at once. If he does not answer the first ring, the exchange operator will call him again.

When through talking, *hang up your telephone* and give one short ring for disconnection. This ring should always be given by the party asking for connection.

NOTE—Parties having a switch on their bell boxes instead of a hook—must remember to turn the switch to the *right* when talking, at all other times *invariably* to the left.

A ticket is made at exchange office for each connection asked for. Unless connection is delayed over ten minutes, do not repeat the call when your connection is not made instantly—because it simply piles up more than one ticket for but one connection and creates confusion.

Subscribers are particularly requested to mail written notice to the central office, when instruments do not work—beside notifying us over the wires—in order to insure prompt attention.

B. E. SUNNY,
Superintendent.
June 1, 1879

C. N. FAY,
General Manager.

FACSIMILE OF INSTRUCTIONS PAGE IN OLD CHICAGO TELEPHONE DIRECTORY.

Telephone Men Head Clubs

Whether the telephone business peculiarly fits a man for athletic direction or athletic training and leadership is necessary in reaching a high place in the telephone field, Cleveland has emulated Columbus in choosing the head of one of its telephone companies as head of its athletic club. C. A. Otis, president of the Cuyahoga County Telephone Company and well known here as the head of the brokerage firm of Otis and Company, has been elected president of the Cleveland Athletic Club. The president of the local club is E. A. Reed, general manager of the Central Union Telephone Company. It may be interesting to note that while being a telephone man is prerequisite to athletic leadership, the honors are not confined to the Bell system.—*Columbus (Ohio) Journal.*

Telephone Aids Legislation

Recently the Ohio legislature was considering a revision of the banking laws. The wish was to make changes so the state law will be in harmony with provisions of the new currency measure. Lawyers differed over that problem.

Special Counsel Frank Davies of the office of Attorney General Hogan prepared a brief of the provisions of the proposed bill. Governor Cox got Controller of the Currency John S. Williams in Washington on the telephone, read the brief to his stenographer and asked for an official communication as to the completeness of the bill. If not complete, Federal authorities were asked to suggest in what way it could be made so.

Promise was made that an official reply would be mailed from Washington that evening so that work might proceed the next day in Columbus.

Cut'over at Mt. Clemens

By W. A. James, Manager at Mt. Clemens.

The cut'over at Mt. Clemens, Mich., took place on the evening of January 7th, and was completed in time for a photograph to be taken at 9:30, as may be seen by the clock in the picture.

The new board is a No. 10, with fourteen positions, seven toll, and seven local. It is an 1,100 multiple board.

The old board was a No. 9, and was in rented quarters. The new board is in the building now owned by the Michigan State Telephone Company, having been bought from the former Macomb County Telephone Company.

The two boards were trunked together, and the equipment on the new board was insulated by means of 1,000 small wooden plugs tied to strings in a section next to the last. This arrangement made it possible to get a jack test from the last section of the new board to the old board.

When all the trouble was cleared, the plugs were pulled. Previous to this, the strings had been bunched. The heat coils of the old board were then pulled.

There is now ample space in the new quarters for the commercial department, operators' retiring room, and all conveniences for an up-to-date telephone exchange.

The cut'over took place under the superintendence of C. G. Sharpe, plant superintendent; C. Kittredge, engineer; Fred Clarke, traffic engineer, and H. E. Harrington, equipment supervisor.

Work was started early the next day to dismantle the old exchange building.

The Bell Company in purchasing the exchange secured the building of which the operating room is shown in the picture. This was remodeled throughout and finished in mission wood with a beautiful open mission wood stairway leading from the commercial department to the center of the operating room. New apparatus was installed throughout in the plant department, new ringing machines, motor, main frames, test desks, batteries, etc., the most modern equipment known being purchased. The equipment throughout shows a capacity of at least thirty per cent. left for new business. In order to express rightly the equipment used it might be stated that in moving from the old quarters to the new nothing was transferred except the records, tools and three business desks.

The outside plant of both the Macomb County Telephone Company and Bell Company is being consolidated at this writing and that portion of the Bell Company's plant which is necessary is being placed in first-class condition by the construction foreman, William Ferris. These efforts of the Bell Company to keep established a most modern telephone plant impress the citizens of Mt. Clemens and vicinity that we desire to furnish the public the very best service possible. The present local service continues to be a two-second service and plenty of toll line facilities are available both in and out at the Mt. Clemens exchange.

Basket Ball Players, Attention!

The Central Y. M. C. A. of Chicago has invited the Chicago Telephone Company to enter a team in their Commercial Basket Ball League, which at present includes Marshall Field, Carson Pirie Scott & Company, John B. Farwell, The International Harvester Company, and the Albert Dickinson Seed Company.

Candidates will please communicate at once with Captain George Spiegelhauer



SWITCHBOARD AFTER CUT'OVER AT MT. CLEMENS, MICH.

Reading from right to left, those in the picture are: Hazel Elsey, Lillian Prevost, Eva Furton, Harriet Holtz, Grace Devantier, Lena Haller, Della Miller, Irene Furtah, Margaret Woods, traffic supervisor, at whose back is Eliza Cook; Elsie Chamberlain, Kate Defenbaugh, Cora Sawitzky, W. A. James, manager at Mt. Clemens, and Margaret Haller, chief operator. Miss Woods is assisting in training the operators in their work on the new No. 10 switchboard. One and one-half sections of the switchboard as well as one local operator cannot be seen as the camera ruthlessly cut them off at the left. The public at Mt. Clemens is very much pleased with the new equipment for providing first-class service in that well known city.

of the Power and Light Division or with M. D. Atwater.

Bell Telephone Bowling League

STANDING OF THE TEAMS FEBRUARY 19, 1914.

Team.	Won.	Lost.	Pct.
Installation	44	13	.772
Engineers	43	14	.754
Commercial	39	18	.684
Maintenance	38	19	.667
Traffic	34	23	.596
Construction	24	33	.421
Revenue	24	33	.421
A. T. & T.	19	38	.333
Suburban Coml.	11	46	.193
Collectors	9	48	.158

A team of the strongest bowlers in the company has been organized to represent the Bell Telephone League of Chicago at the International Congress at Buffalo in March. The make-up and records of the team are as follows:

Name.	Team.	Games.	Aver.	High.
Carey	Commercial	54	192-9	246
Love	Commercial	57	186-3	267
Johnson	Engineering	57	182-21	257
Welch	Installation	51	179-24	235
Atwood (Capt.)	Eng'ring	33	178-29	246
Bontemps	Maintenance	51	177-32	243

Team average, 921.
High individual average, three games, Johnson, 224.

This picked team, under the management of Jack Ebert, met the champions of the Commonwealth Edison Company on the Randolph alleys, Saturday, February 7th, and defeated them by the following scores:

Chicago Tel. Co.. 933 926 918; total 2,777
Common. Ed. Co.. 886 877 964; total 2,727

Such a score would bring home considerable "bacon" from an international meet.

Fifty-six teams will represent Chicago in this tournament. Buffalo has entered 150 teams. The Bell employes of Buffalo have entered six teams.

The Chicago men will leave on Thursday, March 12th, will bowl their five-men team on Friday and their two-men and individual matches on Saturday. The telephone officials have arranged for their entertainment and for a strenuous practice match with a picked local telephone team.

Bell Telephone Indoor Baseball League

STANDING OF THE TEAMS FEBRUARY 20, 1914.

	W.	L.	Pct.
Plant	9	1	.900
Auditor	7	2	.777
Collection	3	5	.375
North Installation	2	4	.333
Oakland	1	8	.111
Commercial	0	6	.000

RESULTS OF GAMES.

February 17th, 1914.
Plant, 15; Commercial, 5.
February 18th, 1914.
Collection, 3; North Installation, 7.
February 20th, 1914.
Auditor, 17; Oakland, 6.
February 24th, 1914.
Auditor, 6; Plant, 4.

The game of February 24th between the two leading teams of the Bell Telephone Indoor League of Chicago was hotly contested and created great excitement among the spectators. The Auditors took the lead early and were never overtaken.

It was a pitcher's battle of a high order, Fremt of the Plants striking out twenty-three men and giving three hits and eight bases on balls, while Dillon of the Auditors struck out twenty-four and allowed three hits and four bases on balls.

Robertson of the Auditors caught in sensational style in spite of an injury to his finger.

The score by innings:

	1	2	3	4	5	6	7	8	9
Auditor	0	3	0	0	2	1	0	0	—6
Plant	0	0	2	0	0	1	0	0	—4

"Sight Unseen"

T. C. Hammond, a stock buyer of Elizabethtown, Ind., recently bought 338 head of hogs "sight unseen." Every porker was bought by telephone. The lot brought \$6,739.80—an indication of why spare ribs and pork chops are high these days.

Sherlock Holmes

Voice at the Other End—"Hello! Is that Madison 1364?"

Bridget—"Glory be, ut is! How the dickens did ye guess?"—Exchange.

Census Telephone Report

Preliminary figures of the forthcoming quinquennial report on telephones of the United States have been given out by Director W. J. Harris of the Bureau of the Census, Department of Commerce. They were prepared under the supervision of W. M. Steuart, chief statistician for manufactures.

The statistics relate to the years ending December 31, 1902, 1907, and 1912. They include the total wire mileage and the total number of telephones reported for all systems in the United States that were in operation all or any part of those years. They do not include private telephone lines used exclusively for communication between different departments of the same establishment unless connected with lines elsewhere through a private or branch exchange. The number of telephones includes all installed, including those furnishing service through private branch exchanges, local pay, and outlying toll stations.

During the year 1912 the length of wire used on the telephone lines of the United States amounted to 20,248,326 miles. This represents a gain of 15,347,875 miles during the decade, or an increase of 313.2 per cent.; there were 8,729,592 telephones in use, or 6,358,548 more than the number reported for 1902, an increase of 268.2 per cent.

The number of telephones reported by the Bell Telephone System increased by 137.8 per cent. during the period from 1902 to 1907, and by 62.4 per cent. from 1907 to 1912. During the same periods the number of telephones reported by all other companies and systems increased by 183.4 per cent. and 22 per cent., respectively. In 1902 the Bell System controlled 69.1 per cent. of the wire and 55.6 per cent. of the telephones in use. In 1912 this system controlled 74.7 per cent. of the wire and 58.3 per cent. of the telephones. The proportion of the total wire mileage and total number of telephones owned by the Bell Telephone System has increased during the decade, while that owned by the independent companies has decreased.

The purpose of telephone companies is to afford communication between distant points, and the amount of business is usually expressed by the number of separate messages or talks that pass over the wires. While some companies keep an accurate account of the number of messages, as a rule no record is made from which accurate statistics can be compiled. It is estimated that there were 13,735,658,245 messages or talks sent over the telephone lines of companies which had an income of at least \$5,000 during 1912. A message may represent either a few words or a long conversation, and therefore does not indicate the extent to which the equipment is used. It was impossible to obtain even an estimate of the number of conversations over the private branch wires and the party lines which do not require interconnection at the public or central exchanges. No estimates were required concerning the number of messages for the 1,402,844 telephones on the lines of small companies which had an income of less than \$5,000 during 1912. Messages for these smaller systems were included to some extent at the census of 1902; therefore the statistics of messages reported for the three years are not strictly comparable, and they should not be considered as representing the total amount of business transacted by tele-

phone systems of the United States during the year 1912.

The figures in detail are shown in the tables on this page.

Telephone Protector of the Home

The telephone as an automatic protector of the home was in evidence Wednesday afternoon when A. Ratliff, trouble man for the Central Union Company, discovered water running through the residence of G. E. Doying, 218 Pine street. The house has not been occupied for some time and during the recent cold snap a water pipe froze and burst. Wednesday the warm weather thawed out the ice and water ran through the house. The telephone at 1:30 in the afternoon registered a short circuit and Mr. Ratliff was sent to locate the trouble. Failing to gain entrance to the house, he heard water dripping and an investigation showed that the house was partly flooded. Although the break in the pipe was on the second floor and the lower floor was well soaked, the only damage done was to some of the wall paper.—*Courier*, Jacksonville, Ill., January 15th.

Mr. Doying, who is editor of the *Courier*, presented a \$5 bill to Mr. Ratliff in appreciation of his efforts to prevent damage to the house.

Steals Tramp's Dinner

A cold, miserable "hobo" stopped at a hotel in Lake Odessa, Mich., one morning in the latter part of January, and begged for something to eat. The landlady told him to come back at dinner time and should would give him a meal.

At half past twelve that day L. J. (Lucky) Currie, foreman of the Lansing District of the Michigan State Telephone Company, stopped at that hotel for dinner. The dining room girl brought the meal in all heaped on one plate, while the other boarders had theirs on various dishes. Mr. Currie observed this circumstance and was somewhat puzzled, but said nothing. When he went out to pay for his meal, the landlady's daughter rushed out to her mother and exclaimed, "Why, mother, that tramp has money."

Convenience in Paying Bills

The Michigan State Telephone Company has adopted a plan to save subscribers the inconvenience of going downtown to pay telephone bills. At a charge of five cents the American and National express companies and their branches will accept payments for telephone rentals and tolls. There are branch agencies of

the express companies in almost every part of the city.

It costs seven and one-seventh cents round trip on most car lines in Detroit to pay a telephone bill downtown. There is a saving of five cents if payment is made at the express agency in addition to a saving of time and the inconvenience of waiting at the cashier's window on rush days.

The express companies cannot accept part payment on telephone accounts. Bills must be paid in full and paid during the discount period. The telephone company also will continue the present arrangements for payments at its office.

Met the Situation

Anson Stager, first president of the Chicago Telephone Company, Central Union Telephone Company and Western Electric Company, was on a train on his way to Cincinnati when the train was derailed and wrecked. They were many miles from any station and were in danger of being run down by other trains. Stager cut the wire and telegraphed to headquarters for a wrecking engine by striking the ends of the wires together. But how was an answer to be received? Stager placed the two ends to his tongue and read the answer in that way.—From the *Electrical Review*, New York, April 12, 1883.

Gold Medal For Professor Bell

The gold medal of the Royal Society of England was conferred on Professor Alexander Graham Bell in recognition of his inventions, notably that of the telephone. The medal was presented in London, November 13th.

Oddities from the Newspapers

There are still a large number of people who call up the depot to find out how the trains are. You can avoid all this trouble by just asking Central and they will tell you. The depot force has other work to do besides answering unnecessary telephone calls.—From a newspaper in Abbotsford, Wis.

The telephones at the county jail have been equipped with extension bells, which will tinkle during the night right at the bedside of the sheriff and his deputies. This is good evidence that business at the county lockup is in a flourishing condition. Bill Taylor is certainly a great little manager, and keeps his boarding house filled up most of the time.—From a newspaper in Portland, Mich.

FIGURES FROM FORTHCOMING CENSUS TELEPHONE REPORT.

	Year.	Miles of wire.	Number of telephones.	Estimated num- ber of mes- sages or talks.*
United States.....	1912	20,248,326	8,729,592	13,735,658,245
	1907	12,999,364	6,118,578	10,400,433,958
	1902	4,900,451	2,371,044	5,070,554,553
Bell Telephone System.....	1912	15,133,186	5,087,027	9,133,226,836
	1907	8,947,266	3,132,063	6,401,044,799
	1902	3,387,924	1,817,178	3,074,530,060
All other companies and systems..	1912	5,115,140	3,642,565	4,602,431,409
	1907	4,052,098	2,986,515	3,999,389,159
	1902	1,512,527	1,053,866	1,996,024,493

*The number of messages reported by the Bell Telephone System includes only completed calls, while the figures for all other companies may include some original calls not necessarily completed; such as calls that the operator reports as "Line busy" or "Does not answer."

*Exclusive of companies with an annual income of less than \$5,000.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

It is often said by girls who have worked at the telephone switchboard for a few years that there is a fascination about the work that they feel but do not quite understand. Girls who have left the work expecting never to return to it, often come back drawn as if by magnetic force.

I have asked many girls what it is about the telephone work that appeals to them. Some of them who long since have become supervisors or chief operators say that to be at a full board is like playing an interesting game. To feel competent to play the game well gives an exhilaration and interest that is more like fun than work. There is the element of chance which a game provides, for you never know when the next light will shine or what exchange it will go through. You cannot calculate how long the lines may be held and there is a pleasure, like sweeping the board of the cards, when occasionally all the cords come down.

But it is not a slow board that appeals to the efficient girl. She likes to have the time go fast as she loses herself in her work and she doesn't like to have time to meditate between the calls. She knows that she is more likely to make a mistake then than when her mind is so occupied that she is alert and concentrated on the business before her.

There is a fascination in being a supervisor or instructor for one sees the progress of the students in her charge, or takes pride in the efficiency of her division. But this is not uncommon; the school teacher, the head of a department, or section, in any business can take pride in her work in this same way, but the operator has a unique work and its fascination is something which pertains entirely to the kind of work she handles.

In an interesting article on the woman whose picture appears on this page, we have an illustration of the way this work has fascinated and held one woman who is unusual, not from having worked so long for the company, but because she still operates a switchboard and takes pleasure in it.

And the game besides being entertaining is worth playing, not alone for the steady income which it gives, and not alone for the pleasure of "playing the game," but because it is actual service, a giving of one's self in ministering to others. The girl who can feel this has

reached the highest ideal of life and will be the happiest operator as well as the most efficient.

Operator For Thirty Four Years

Baltimore has a woman telephone operator who has served thirty-four years

at the table or switchboard, and there was also what was known as a central switchboard.

"The first multiple switchboard was installed in 1884, and had sixteen positions, 100 subscribers to a position. It was at that time that head receivers for the operators were introduced. Previous to that we had been using hand receivers.

"During the first few years of telephony in Baltimore both boys and girls were employed as operators. It was noticed that the girls had more tact in dealing with subscribers than did the boys, and the latter were gradually superseded.

"While the boys—some of them were pretty husky—were on the job it was strictly 'a man to man' proposition between operator and subscriber. Quarrels were frequent and, on one occasion, when a subscriber was particularly abusive, the operator left his position at the switchboard, went around to the subscriber's office and gave him the chastisement of his life. Needless to say, the operator did not return for duty. The subscriber was noticed to be very mild afterward.

"Special attention was paid to 'don't answers,' each one being recorded in a book. Sometimes the operator would succeed in getting in touch with a called party the next day, and frequently the other party would be just as willing to talk then as the day before. Messages would 'keep' better than they do now.

"Shortly after the phonograph was invented some genius in the St. Paul (Baltimore) office tried to utilize it in connection with the telephone. A phonographic record was made, and the burden of its song was—

'Line is busy; please call again.'

"The machine was run by a small motor, and would grind out its 'Line is busy; please call again' for an indefinite period. There was a line in the switchboard connected with the phonograph, and when a subscriber called for a number which was busy, the operator connected him with this line and he was informed that the line is busy as long as he cared to listen. As may be imagined, this 'canned operator' was not popular with the subscribers and was soon abolished."

Miss Ratcliffe was the last person to leave the Carrollton Hotel, where she had charge of the switchboard, when the hotel burned in the great fire of 1904. She likes her work and hopes to keep her "job" for some years to come.



LENA RATCLIFFE,

Who has been a Telephone Operator Thirty-four Years.

at the board. We say "woman" operator because Lena Ratcliffe (she is the woman) entered the work at a time when telephone operators were boys.

We do not know whether any woman operator in the Central Group has such a record or not. If there is such a one, we should like to hear from her.

Miss Ratcliffe now has charge of the pay station in the St. Paul Exchange Building, Baltimore. She related some of her early experiences in a recent issue of the *Transmitter* and we reproduce below a part of her article.

"I made my debut in the telephone field in 1880. At that time there were no direct lines, every line serving eight or more parties. Even the president of the company was on an eight-party line. In the central office each operator had a sep-



AMERICAN BORN GIRLS WITH PARENTS OF SIXTEEN NATIONALITIES WHO GAVE COSTUME PARTY IN CHICAGO.

Left to right, standing—Colonial girl, Miss Tucker; Irish dancing girl, Miss Duffy; Scotland, Miss Bryce; Italy, Miss Tozzie; Denmark, Miss Jensen; Sweden, Miss Petersen; England, Miss Moston; Columbia, Miss Crane; Norway, Miss Jacobsen; Holland, Miss Burwitz; Russia, Miss Ginsburg; Poland, Miss Wisniewski; Ireland, Miss Rafferty; Germany, Miss Wolf; Colonial girl, Miss Burke.

Left to right, seated—Colonial girls, Misses Rowland, Schaefer, Kilbride, Diebold, Hamlet, Walsh, Murphy, McDonnell. Bohemian girl, Miss Teborek, and French girl, Miss Langlois, were unable to be present when the photograph was taken.

All Nations in Universal Service

The fact that Monroe exchange in Chicago could present the descendants of sixteen nationalities at a recent entertainment, is an interesting comment on the hospitality of Chicago and the educational advantages there.

In representing the sixteen nations, it was discovered that in that one office could be found sixteen girls born here, but of parents who had come from these different countries. All of the young ladies are so thoroughly Americanized that only such an occasion would bring out the fact of their foreign descent.

The mere fact that they are all in the telephone work proves that our language and customs are their own. Everyone knows that telephone service is now universal service and that the wires are wound about the globe, but it is rather surprising when we realize that the voices of so many nations are speaking from our own exchanges.

The party in which this interesting exhibition was given was a Good Fellowship party. What better illustration of the wide good fellowship could there be than the singing of "America" by this chorus on Lincoln's birthday?

"Cheering for the Other Exchange"

At a party in Chicago where several offices were having a good time, and the friendly rivalry between the exchanges had run high and was expressing itself in loud cheers, each table for its own office, there was a sudden lull in the noise and a voice from West table called out "Three Cheers for Canal, Lawndale and Monroe." The voice was heard and the cheers rang out with a will and thereafter it was more good fellowship than ever, because Tillie Jaax was ready to cheer for the other girls.

Three cheers for the girls who are not only enthusiastic over their own office, but who are broad enough to recognize the others and try to encourage a feeling of cooperation instead of rivalry.

Suffragist Compliments Service

Kate Wood Ray, prominent in the woman's suffrage movement in Indiana, paid a high compliment recently to the service rendered by the operators at Gary, Ind. Mrs. Ray is Chairman of Education for the Indiana Equal Suffrage Association and has her headquarters at Gary.

Under date of February 14th, she wrote as follows:

Mr. L. H. Meyer,
Manager Chicago Telephone Company,
Gary, Ind.

Dear Sir: I am enclosing you herewith check for \$2.75 in payment of enclosed bill. I wish to express at this time the appreciation which I feel for the unqualified excellence of the telephone service which I receive in Gary. I have just returned from a somewhat extended trip covering nearly all the cities of any size in our state, and nowhere have I found such satisfactory service as that which I have at home.

I wish you would convey to the girls that contribute to this excellent service my word of acknowledgment, and not being unmindful of the part which you yourself contribute, I remain,
Yours respectfully,
(Signed) KATE WOOD RAY.

Advice From An Operator

Among the comments found in the "Question Box" at the operators' meeting at Anderson, Ind., on January 30th was the following:

"Girls: Stop and think for a moment. Don't you find all about you that the girls who 'make good,' and are liked by everyone, are the ones who do the best work, attend to their own affairs and not to some one's else. And if you must tell something in the retiring rooms, be sure that it is true and not exaggerated. I think what the company has now done

for us is splendid, that we one and all should thank them for it. It now lies with us to 'make good' and get more money. Let's try to be as one and not pull apart."

Exchange of Exchanges

St. Louis, Mich.:

Operator: "Number, please."

Subscriber: "One, skidoo."

Operator: "One, two, three?"

Subscriber: "Right."

Ypsilanti, Mich.:

Rural subscriber: "Central, when are you going to fix my 'phone?"

Trouble operator: "What seems to be the trouble with it?"

Subscriber: "Well, I don't know. I can take down my receiver and hear the street cars down town, but I can't get central."

Manitowoc, Wis.:

A subscriber called for the correct time and was given 8:04. Then she said, "Operator, please give it to me the other way; I always have to go backwards when you say it that way."

Detroit, Mich.:

Subscriber: "Give me 1000."

Operator: "What office, please?"

Subscriber: "No office at all, central, it's the trouble department at the West exchange."

Operator: "Repeat your number, please, and I will ring them again."

Subscriber: "Oh well, wait till I look it up in the Bible again."

New operator (going in on circuit): "Change 1683."

B operator (not having had call before): "Not up—63."

New operator (turning to supervisor): "How does she know they are not up?"

Operator: "Number, please?"

Subscriber: "Well, what numbers have you?"

Operator: "Number, please?"

Subscriber: "Oh, I thought it was Joe coming home, but it ain't, 'cause he ain't home yet."

Street car conductor (calling off streets): "Central."

Operator (one of the passengers): "What number were you calling?"

Frankfort, Ind.:

Deaf subscriber: "Operator, operator, will you please turn on a little more electricity? I am very hard of hearing."

Menomonie, Wis.:

Rural Subscriber: "Every time I ring for central, there is some von hang on the line."

Chief Clerk: "Who do you think it is?"

Subscriber: "It is —'s."

Chief Clerk: "Have they any children that might be inclined to bother you when you talk?"

Subscriber: "Children! Every year von."

Beloit, Wis.:

Speaking of the usefulness of the telephone, a lady in Beloit usually calls the operator when the fire bell rings and says, "Oxchange, can you tell me where the fire are?"

Zion City, Ill.:

A country subscriber reported her telephone out of order and stated that she would bring it in for repair, and after



AN INTERESTING COSTUME.

The dress worn by Miss Tozzi in the entertainment given by Monroe operators was made and worn by her grandmother sixty years ago. The waist, of white linen, and the skirt and jacket of red homespun, were woven by her grandmother in Italy. The head dress, a yellow silk shawl, is embroidered with red flowers and fringed with yellow. The jewelry which Miss Tozzi wore consisted of a brooch of elaborate design of thinnest hammered gold and she wore long ear rings also of gold.

about twenty minutes she entered the operating room with the telephone in her arms. She believed in "repair while you wait."

Waukegan, Ill.:

A toll operator was trying to get a subscriber of another exchange who would be able to tell of an accident which had occurred the previous night.

Operator: "We want some one who can tell us about the man that was killed last night." After repeating this several times in attempt to make them understand what she wanted she became a bit nervous and said, "He wants to talk to the man that was killed last night."

Information Operator: "This is Information."

Subscriber: "I want Mrs. ———." Information Operator: "What Mrs. ——— do you want, please?" Subscriber: "I want the Mrs. ——— that is Nellie ——— sister-in-law."

Lake Forest, Ill.:

Subscriber: "Information, will you please give me the telephone number of the big yellow house on Deerpath Ave."

Highland Park, Ill.:

A small boy came running up to wire chief (whose office is adjacent to a dentist) saying "I want you to pull my tooth." At sight of some formidable looking apparatus produced by the wire chief, the boy made a hasty exit.

Yards, Chicago:

An operator questioning a student asked her: "How would you handle call from line with black ring on white opal for long distance?"

Student: "Remove plug part way in

jack and introduce subscriber to long distance."

A subscriber on improved nickel last did not know when to put nickel in slot. The operator told him she did not get signal for his nickel. He called for supervisor and complained that the operator always said, "I'll give you the busy signal for a nickel."

Calumet, Chicago:

A subscriber calling long distance was informed by long distance that the party he was calling was not there. Subscriber said, "I know he is there, because I sent him a load of cattle yesterday." Operator said, "You did not send the cattle by long distance, did you?" The subscriber laughed and thought that was rather clever.

Drover Hospital Operator: "What number are you calling, please?"

Subscriber: "Drover —."

Operator: "— is busy."

Subscriber: "I don't see how they can be busy before I get them."

Operator: "There are two parties busy talking on that line; please call a little later."

Subscriber: "Well, that's a three party line, so put me in on it, too."

Operator: "What number are you calling, please?"

Subscriber: "I don't see why you can't hurry; they only live in the next block."

A subscriber while talking was cut off. Turning to some one in the room with her she exclaimed, "Oh, we are put out again!"

The Boston Method

A young lady took down the receiver of the telephone one day and discovered that the line was in use.

"I just put on a pan of beans for dinner," she heard one woman complacently informing another.

She hung up the receiver and waited for the conversation to end. Upon returning to the telephone, she found the women still talking. Three times she waited, and then at last, becoming exasperated, she broke into the conversation.

"Madam, I smell your beans burning," she announced crisply.

A horrified scream greeted the remark, and the young lady was able to put in her call.—*Telephone News*.

Plucky Operator

Mrs. J. H. Wright, in charge of the telephone exchange at Independence, Ky., by her heroism prevented the fire which wiped out two buildings there recently from spreading to adjoining buildings. With the roof burning over her head, Mrs. Wright asked Covington for assistance in fighting the fire.

On Her Mind

She wanted to call up the shoe store and ask if a certain style of shoe had been received. She took down the receiver.

"What number" said exchange.

"Narrow twos," she promptly replied.—*Cleveland Plain Dealer*.

Who's Boss Here?

The Waukegan manager received a post card containing the following message: Dear Sir: My husband notified you that he wanted a telephone, but when I heard of it I said I did not want any, because I don't know if we will stay here or not. So please don't come. Obligated, Mrs. ———.

No One Would Notice It at All

A Milwaukee installer met with an amusing incident in the performance of his duty recently.

An order had been issued to install a telephone in a doctor's residence located near Fox Point. In accordance with this order, the installer made the trip to Fox Point to put in the service.

He rang the front door bell and also rapped on the door, but found no one at home. He then went to a nearby telephone and called the doctor's office in Milwaukee in order to ascertain how he might gain entrance to the house in order to complete the work.

The doctor advised him to climb in through one of the rear windows and gave him further instructions as to the location of the telephone. The installer replied that he did not desire to pursue that method as he might be thus taken for a burglar. The doctor replied that he need not worry about that, as such things were a common occurrence in that vicinity, ending the conversation with a request that the installer inspect the premises in order to ascertain whether or not there were any rugs left in the house.

All in the Monicker

An actual occurrence at Columbus, Ohio:

Toll operator, to L. J. House, chief clerk to the district commercial manager, whom she has rung by mistake on a toll call: "Is this the senate chamber?"

"No, this is the House."

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings, Correspondents

Death of Commercial Agent Plant

FRANCIS W. PLANT, commercial agent at Joliet, Ill., died January 21st at his home. For about sixteen years Mr. Plant has rendered faithful and efficient service in the commercial department, working for the last ten years out of the Joliet office.

A "gentleman of the old school," absolute in integrity and with a keen sense of justice combined with a cheerful disposition and kindly manner, he won and retained the warmest friendship of his superiors and associates. The company management sent a beautiful floral offering at the time of the funeral, and another floral tribute testified the loving esteem in which he was held by the telephone employees of the district.

Good Fellowship Parties

Harrison and Wabash were entertained at dinner on Tuesday evening, January 27th, in the series of Good Fellowship Parties which are being held at the parlors of the Main office. It was certainly good fellowship which prevailed, but there was also a friendly rivalry between the two offices which called out lively competition in yells for their own exchanges, and for their favorite managers and chief operators. As usual the tables were surrounded by hundreds of pretty girls who entered into the jolly spirit of the occasion with enthusiasm. After adjourning to the Assembly Hall, a delightful program was given by girls from the two offices.

Edna Oakes sang, "Won't you take me back"; Esther Harris played a violin solo, accompanied by Miss Phelan and Miss Morrissey, and Miss Sheezy gave some very entertaining dances in costume.

Before the program Mr. Welch acting as toastmaster, introduced Mr. Foster, Mr. Cooper and Mr. Forbes, who spoke in a humorous way, interrupted frequently with enthusiastic cheers. As usual the dancing which completed the evening's entertainment was enjoyed greatly and no one seemed to miss the men for partners.

On Tuesday, February 3d, Oakland, Douglas and Calumet held their party, and for enthusiasm and good cheer it certainly was second to none. As at the Harrison-Wabash party, the decorations were appropriate to Valentine month and hearts seemed to be everywhere. In fact, after dinner it was easy to see that everyone's heart was in the right place, for each girl wore hers where it could be seen. Under the able leadership of Miss Hamilton, Miss Evick and Miss Frawley, the girls entered into an enthusiastic rooting for their respective offices, which created much fun. Mr. McCorkle introduced the speakers and a great deal of merriment was caused by the persistent office enthusiasm. Douglas, led by a young lady who was a wonderful fan, kept to the front all through. The following song was given with great enthusiasm to the tune of "Peg o' my Heart":

Our office force is a wonder,
It never makes a blunder,
Repeats its orders best of all,
Makes the girls of other places,
Look at us with sour faces,
And if they try to block us,
Nothing at all can stop us
Through all the war
We beat them all,
Douglas girls.

In the program which followed each office provided entertainment. Miss Litterell of Oakland whistled "When Dreams Come True" in a charming manner. She was accompanied on the piano by Miss Lucas. Miss Lackman of Calumet sang "Isle d'Amour," which was enjoyed greatly; Miss Johnstone accompanied her on the piano. Miss Burke and Miss Wide danced some fancy dances, which were most enthusiastically encored. After the program the general dancing and social time which followed was fully enjoyed by all.

The party for Main office was given Thursday evening, February 5th. As was to be expected, the girls were quite at home and the evening was delightfully social and free. Mrs. Regan met with a surprise which was quite amusing. Having marshalled a chorus of girls together to sing a few songs and having quieted the audience, her chorus burst forth with this eulogy:

We will bow to Mrs. Regan,
Our Chief so grand and true,
For she is the one who keeps hustling,
For the white and blue.
She treats us all just, fair and square.
In all the eats and parties she's right there.
Three cheers for Mrs. Regan,
Our Chief so grand and true.

After a good laugh at Mrs. Regan these lines were sung:

We are the Official 300 maids,
Of erunciation we're not afraid,
We always try to roll our threes
So B. R. Cooper will be pleased,
And when it comes to fanning cords,
We'll do that for Hefferren and Forbes.
Three cheers for B. R. Cooper,
For he is our Traffic Chief.

Let's sing for H. N. Foster,
For Foster is our boss,
He's good and kind, he wants us all to mind,
And when he calls he's never cross.
For Foster is the best of all,
In our "big Company."
Three cheers for H. N. Foster,
Foster of the C. T. C.
(To the tune of "There's a girl in the heart of Maryland.")

The program after dinner was opened by Mr. Hefferren, who introduced the speakers, Mr. Foster, Mr. Cooper and Mr. Forbes, who were enthusiastically received. The program which followed consisted of recitations by Edna Grimes and May Touhy who gave some particularly pleasing readings. Bessie Kierman sang, accompanied on the piano by Bernice Bonner, and was enthusiastically encored. Some fancy dances by Goldie Lease and Minnie Neff made a most entertaining



TOLL OPERATING FORCE OF THE CHICAGO TELEPHONE COMPANY, AT JOLIET, ILLINOIS.

Subscribers of the Chicago Telephone Company in the Suburban Division make approximately 14,000 applications for toll service daily. Naturally, all calls filed cannot be completed, but a strict application of the approved toll operating rules, combined with zeal and good judgment on the part of the toll operating force, reduces the number of lost calls to a minimum.

The toll operating force of the Joliet, Ill., exchange, under the leadership of A. H. White, district manager, G. T. Jones, traffic chief, and Kathryn Heath, chief operator, realizing that a lost toll call means loss of revenue to the company and, in some measure, unsatisfactory service to the subscriber, have, for the past few months, been conducting a vigorous campaign to increase the percentage of completed toll business. As a result, the lost calls, which were running about 15.4 per cent. in July, 1913, have been steadily reduced until in January, 1914, the lost business was but 7.7 per cent. of the calls filed.

The above is a picture of the Joliet toll operating force. Upper row, left to right, Ethel Burnham, Euphemia Hutchinson, Barbara Hutchinson; second row: Mayme Rafter, Anna Dzuiban, Mabel Ruffing, Lulu Klett; third row: Ella Cullom, Kathryn Heath, Mabel Carroll.

number of the program. General dancing and a social time followed.

On Thursday, February 12th, Monroe, West, Lawndale and Canal were entertained and the patriotic decorations and opening numbers on the program were in keeping with the day. The picture on another page of the young ladies from Monroe who represented sixteen nations cannot give the beautiful effect of the colors nor indicate the spirit in which the girls entered into the singing of "Columbia the Gem of the Ocean," "America" and "Dixie," nor can it suggest the entertaining Irish dances by Miss Duffy and the "Polish Love Song," by Miss Wisniewski, accompanied by the guitar. This part of the program was given in the dining hall and was a surprise to all. Later, after the addresses by Mr. Foster and Mr. Cooper and Mr. Pashby, the following splendid program was given:

Miss Krueger of Monroe sang "Garden of My Heart"; Miss Swartz of Monroe gave a fancy dance, representing all nations; Misses Galletch and Schmidt of Monroe gave a violin and piano duet; Miss Hickey of Canal gave a piano solo; Miss Gogan of Canal sang "On My Way to Mandalay," accompanied on the piano by Miss Christie; Misses Donohue and Hart of West sang a group of songs, accompanied by Miss Brewer, and Miss Windhauser of Lawndale sang "Peg o' My Heart," with Miss Holub at the piano.

Thursday evening, February 19th, Wentworth, Hyde Park and Yards Offices, met for their good fellowship party. About 400 girls sat down to the gayly decorated tables and from start to finish the office enthusiasm never waned. Office yells and songs echoed from every table. Yards sang to the tune of "Believe me if all those endearing charms":

Believe me, Yards office is some place to work,
With a Manager like Mr. Bell;
He's kind to us all, but firm just the same,
His other grand traits we won't tell.
We all know Mr. Foster in time of need,
Has proven himself a friend;
Likewise, Mr. Cooper, our Traffic Chief,
Is ready a hand to lend.
Believe me, Mr. McCorkle has made a good name,

A name which we all recognize;
In fact, we all hope with his efforts each month,
That Yards will receive the first prize.
So here's to the dear old Yards Office again,
May she ever and ever be true,
To the girls and the men, who have helped her go on,

And the C. T. C. bell so blue.
And Miss Quinlan was surprised with this:
Q-U-I-N-L-A-N,
Shout it over once again,
Miss, the prefix, comes before,
It's proud possessor we adore,
Our Chief Operator can't be beat,
She's stern and strict but yet so sweet,
To make her happy we do our best,
Do we like her yes, yes, yes.

And the Welfare Department heard this cheerful news:
Rah, Rah, Rah, who are we,
We are from Yards of the C. T. C.
Are we healthy, well I guess,
Ask Miss Kohlisaat, she'll say yes.
Hyde Park was not to be outdone and to the tune of a "Million Dollar Doll," the girls sang:

A million calls a day
Answered night and day,
When subscribers call and flash,
Don't lose patience or get rash,
'Phones were made for all,
To be called and called,
And the service they get,

Is the best they've had yet.
For we're the girls that give it,
And they're the ones that get it,
Get what?—Service,
Oh! you girls of Hyde Park and Midway.

Then Wentworth to the tune of "The Wearing of the Green" enthusiastically sang:
Hurrah for Mr. McCorkle, the chief we love so well,
Hurrah for his Assistant Manager Mr. Bell,
Hurrah, Hurrah for Miss Rogers, with her cheerful little smile,
For them we'll work our heads off, and be happy all the while,
Hurrah, Hurrah for Wentworth, the biggest thing this year.

Mr. Foster, give your ear, the news that's going around,
Old Wentworth's aiming for the top, she'll never reach the ground,
We're climbing up for all we're worth, we know that we will win,
We've got the numbers by the throat, we know that sure we'll win.

The program which followed the humorous speeches of Mr. Cooper, Mr. McCorkle and Mr. Forbes was given by Hyde Park girls and consisted of a violin solo by Jean Owens, a vocal duet by Catherine McMahon and Rose Hullenberg; recitations by Monica Kehon, a trio by Miss Owens, violin, Miss Pacius, mandolin, and Miss Dankus, piano, pleased the audience and led in the music for the dancing.

Suburban Changes

The Gary and Hammond Districts have been consolidated, with headquarters at Hammond, Ind. The jurisdiction of O. A. Krimbill, district manager, is extended to take in Gary.

L. H. Meyer has been appointed commercial manager at Gary.

R. N. Patchen has been transferred from the position of district manager of the LaGrange District to traffic chief of the Hammond District.

J. C. Wylie has been transferred from district manager of the Chicago Heights District to LaGrange, as district manager of the LaGrange district, succeeding R. N. Patchen.

The Chicago Heights and Blue Island Districts have been consolidated, with headquarters at Chicago Heights. A. C. Rhoades has been transferred from the position of district manager of the Blue Island District to Chicago Heights as district manager of the new Chicago Heights District, comprising the Chicago Heights, Blue Island, Harvey, Homewood, Beecher, Orland, Monee, Peotone, Evergreen Park and Tinley Park exchanges.

Main Evening Supervisors' Dinner Party

The Main evening supervisors gave a dinner on Wednesday at ten o'clock in honor of Miss Conroy, assistant evening chief, who has resigned to be married. Miss Conroy has been identified with the office for eleven years, and in that time has endeared herself to all her associates who, while congratulating her on her happiness, regret deeply her going. The dinner was given on the eighth floor and the tables were beautifully decorated with narcissus and ferns and appropriate place cards. The evening supervisors who planned and gave the surprise to Miss Conroy, invited as guests, Mr. Foster, Mr. Sullivan, Mrs. Hyatt, Mr. Cooper, Mr. Forbes, Mr. Bradshaw, Mrs. Moore, Mrs. Regan, Mr. Hefferren, Mr. Houchins, Miss Casey, Mrs. Donnelly, Miss Moran and Mrs. Dewhurst.

The menu consisted of roast turkey with cranberry, fruit salad, salted almonds, ice cream, coffee and wedding cake, and the dinner was both delicious and daintily served. A beautiful silver fruit dish was on the table—a present from Main evening force. After a social hour at the table, and short toasts by Mr. Foster, Mr. Cooper and Mr. Forbes, who were called upon by Mr. Hefferren, and a fitting response by Miss Conroy, a program consisting of vocal solos and recitations was given and the remainder of the afternoon was spent in dancing and social conversation.

Marriages

Nora Conway, Main assistant chief, was married Saturday afternoon at 3:30 to James Armstrong. The wedding was at St. Andrew's church. The bride wore a white suit and white hat. She was attended by her cousin, Miss McNamara, and Paul McDonald. Mr. and Mrs. Armstrong will make their home in Montana.

Suburban Promotions

January, 1914.

Hammond: P. Day, operator to supervisor. Hammond: N. Carroll, supervisor to traffic chief's clerk.

Joliet: B. Lasker, operator to traffic chief's clerk.

A Double Surprise Party

Main evening supervisors gave a double surprise party at the home of their chief operator, Miss Joyce, Saturday afternoon, February 14th. As it was the birthday of Miss Joyce, the girls planned to surprise her by a party at her house at which time they would give a linen shower for Miss Conroy. Both surprises were successful and the luncheon which the young ladies provided was enjoyed by the twenty-four of the evening force present. After luncheon, Miss Sabin disguised as a washerwoman gained admittance with a large clothes basket which she presented to Miss Conroy. It contained the linen gifts from the girls, who wish Miss Conroy much joy in her Montana home.

"Bob Ride" at Joliet

Wednesday evening, February 4th, at seven o'clock four large bob sledges pulled up in front of the Joliet exchange and loaded in sixty of the girls and boys of the commercial, traffic and plant departments. A delightful ride of ten miles landed them at "Gleaners' Hall," "out on the farm," where a warm fire, an orchestra and a sumptuous spread of hot "weinies" and—(they won't say whether it was rye bread or sauerkraut)—served to while away the fleeting hours until 1 a. m. The first prize for the tango went to Tom Moran and Celia Cronin and second to Glen Cooper and Gean Daley. The first for hesitation waltz is still undecided—it lies between P. C. Glahn and lady and T. C. Jones and lady. Second went to Harry Lewis and his brunette partner. Much mystery surrounds what is claimed to have been a "horrible accident" that befell one of the boys. The only information obtainable is that after the accident he seemed possessed of an awful dread that rattlesnakes might attack the party.

Monroe Sleighride

The Monroe supervisors and clerks gave a sleighing party Monday evening, February 9th. The ride extended to Forest Park, and there arrangements had been made in advance for dinner, which was thoroughly enjoyed. Singing and dancing followed and a jolly sleigh ride home and the verdict was "one of the dandiest times ever enjoyed."

Oakland Informal

The Mizpah Club of evening supervisors of Oakland gave an informal at Forum Hall, Forty-third and Calumet, Wednesday evening, February 18th. This was the first party given by this club this year and judging by the pleasure everyone who attended experienced, another will be hailed with delight. The attractive hall made a good setting for the large number of prettily gowned young ladies who danced; and the special correspondent for the News, who was invited to attend, finds it hard to get expressive adjectives enough to write up the occasion. But she can certainly speak in highest terms of the hospitality of the Mizpah girls and of their courtesy towards their guests. The music was good, the floor fine and everyone was happy. With such a combination our readers can guess the rest.

Hyde Park Informal

The Ma Saw Ba girls of Hyde Park exchange gave a delightful informal at Woodlawn Masonic Hall on the evening of January 31st. It was largely attended and was a complete success.

Ball at Highland Park

Highland Park operators gave their annual ball at Ravinia Park on January 21st. Pritchard's orchestra furnished music. All spent an enjoyable evening.

TRADE No. 226 Turner HOT BLAST Kerosene Torch MARK



This Kerosene Torch is not only unequalled but is far in advance of any other kerosene torch on the market. A powerful blue flame is produced several hundred degrees hotter than is possible with gasoline in any single jet torch. The increasing cost of gasoline and its forbidden use by insurance rules for inside use in some localities is rapidly popularizing this torch.

Especially Recommended to
Telephone Companies.

No. 226 \$4.50 Each Net
POLISHED BRASS
Jobbers Sell at
Factory Prices

THE TURNER BRASS WORKS

Dept. K. Sycamore, Ill., U. S. A.

Illinois Division**A. J. Parsons, Correspondent,
Springfield****Division Offices**

Ethel Katterjohn, stenographer in the commercial superintendent's office, resigned January 16th and is visiting friends and relatives in Boonville, Ind., her old home. Grace Tucker, formerly stenographer in the construction foreman's office, has taken a position in the commercial superintendent's office.

Anna Lohmmer, until recently employed in the construction foreman's office, was married on February 3rd to Floyd Wines, switchboardman at the Springfield exchange. Shortly before her marriage Mrs. Wines was entertained at a linen shower given by Grace Tucker and Gladys Wilson, at the home of the former. It was attended by a number of young ladies employed in the division offices. The decorations were red and white—bells and carnations being used in profusion. Mrs. Wines was the recipient of a number of beautiful linen pieces.

Alton District

Margaret Coleman, local operator at Alton, entertained the operators and their friends at her home Friday evening, February 6th, in honor of Alma Highshoe, instructress of the Centralia district. About twenty couples were present, regardless of the cold wave. Various games, vocal and instrumental numbers and dancing furnished the evening's entertainment.

Nellie Rielly, clerk in the office of the district commercial manager, Alton, Ill., resigned January 15th and was married to William J. Carey, cashier of the People's Bank, East Alton, Ill., on January 20th. Miss Rielly was employed with the company about ten years and her position is now filled by Elda Paul.

A roaring blizzard was not sufficient to keep away a good attendance at the second annual dance given by the Alton girls of the Central Union Telephone Company at the Illini Hotel, Friday evening, January 31st. The private ball room of the hotel was resplendent with elaborate decorations and brilliant illumination and the girls received their friends and accorded them a warm hospitality. The young lady hostesses spared neither time nor expense in preparation for the event. A very interesting feature of the decorations was a huge bell displaying the Central Union colors of blue and white. The bell was made of beautiful full-blossomed white chrysanthemums, with the inscription made of blue chrysanthemums, bearing the words, "The Traffic Department." The bell was four feet in diameter, and it hung suspended from the ceiling. Thirty small lights were placed alternately about it. The credit for the idea is given to Cora Tibbitt, who supervised the work. In order to further convey the significance of the occasion, telephones were installed in two individual booths where Harry Robertson impersonated the subscriber and Anna Lenecke the operator. The dialogue or scene between subscriber and operator was too funny for words. Another course of added entertainment was the Bell dance, featured by Mr. Robertson and Miss Benecke. Sleigh bells were used to complete the idea, and during the progress of the dance the lights were extinguished and the piano and trap drum

alone were heard, together with the jingling of the bells. The attendance was about eighty-five couples. Credit for the success of the affair is due to the popular manager, Richard Wilder, and his staff of employees. Those especially active on the social committee were Anna Monks, Julia Hale, Cora Tibbitt and A. B. Singer, A. D. Downing, Frederick Simms, J. B. Richmond, William Kennedy and Harry Robertson. Among the out of town guests in attendance were: Manager Seymour of Collinsville, Mr. and Mrs. L. A. Harris of Centralia, Clyde Herrin of Richmond, Ind., and Olivia Monks of St. Louis.

Centralia District

The organization of Central Union employees, of which Catherine Darmody is president, and Pearl Dugger secretary, gave a dancing party at Reese's Hall, Collinsville, on the night of February 18th. *The St. Louis Globe-Democrat*, the following day, said: "Central was 'busy' at Reese's Hall, Collinsville, last night. There were so many 'parties' who wanted her attention as well as her name, and for once she did not reply. 'The company forbids all conversation with patrons.' She made tango and hesitation waltz dates and nobody told the chief operator on her. In fact, there were some 'big chiefs' present, but they had left their frigid voices at home and were as glad as the 'centrals'."

Decatur District

The Western Electric Company is completing the work of installing additional switchboard and several hundred divided multiple at Decatur.

Margaret Ryan, clerk in the commercial department, is taking a month's leave of absence on account of ill health.

Marian Kelly, night chief operator, has resumed her duties after a serious siege of scarlet fever.

Mattie Cade has resumed her duties at Decatur after a short illness.

Galesburg District

A new phantom circuit has been put into the Abingdon exchange at Abingdon, Ill.

Vera Hammond has returned to work after several days' absence on account of sickness.

A new trunk line has been added to the private branch exchange at the Purington Paving Brick Company.

Traffic agreements have been executed by the Viola Telephone Exchange at Viola and the Victoria Mutual Telephone Company at Victoria.

Loretta McNaught has taken a position as pay station attendant at Galesburg.

Jacksonville District

Helen Hatfield, toll operator at Jacksonville, resigned January 1st and was married to Rex Shaw. Esther McCarty takes the position vacated by Miss Hatfield.

Edith Baldwin, toll operator at Jacksonville, was married on January 21st to Terrence Summers.

O. D. Barnett, commercial agent at Roodhouse, has resigned and has been succeeded by Mabel Hildreth, former operator at this point.

Kankakee District

The Pontiac Central Union Telephone operators' third annual ball on Tuesday evening, January 6th, was a success in every particular. The young ladies had the hall beauti-

fully decorated, the prevailing scheme being miniature telephones and lines stretched from one end of the room to the other. The crowd comfortably filled the floor at the big armory and everyone had a good time dancing to the music of Murray's full orchestra. Just 106 tickets were sold at \$1 each, which netted each girl \$6 each after all expenses were paid.

La Salle District

Kathleen Fettig has handed in her resignation as clerk in the commercial department, effective March 1, 1914.

Rose Feray, collector, at La Salle, fell on the icy sidewalk and suffered a fracture of the right wrist. She will be confined to her home for five or six weeks.

The commercial department was very busy last month making preparations for the new system of collecting accounts.

La Salle operators were greatly surprised and pleased to receive as a St. Valentine day gift from Mayor and Mrs. T. F. Doyle a large box of assorted candies with a nice little note accompanying it. Mayor Doyle was in the Presbyterian Hospital, Chicago, at the time, recovering from an operation. The girls wired their appreciation of the gift and their wishes for Mayor Doyle's prompt recovery.

Paris District

During the recent sleet storm 350 telephones and a mile of toll line were cut out at Mattoon. At Charleston 200 telephones were cut out. The line fell across the railroad and a fast train ran through it and took about 300 feet of cable one-half mile down the track. The storm caused a total interruption in the Paris and Mattoon toll lead, breaking down eighty-three poles.

Sayles Bowen, assistant wire chief at Mattoon, who has been acting as wire chief at Charleston for the past two months, has returned to Mattoon. The position of wire chief at Charleston has been filled by Will Goodwin, formerly with the Western Electric Company.

D. O. Long has resigned his position as Morse operator at Paris and is succeeded by O. D. Anderson.

Dora Driskell, night chief operator at Paris, enjoyed a week's vacation.

The Paris exchange has just received new lockers and a new leather couch for the retiring room.

Peoria District

G. C. Treadway, district commercial manager at Peoria, was married February 10th to Elvira P. Avery of Galesburg, Ill.

A private branch exchange contract has been secured from the Deaconess Home and Hospital at Peoria, covering the installation of a No. 4 system, consisting of two trunks, one switchboard and thirty stations.

George A. Pankey, formerly commercial agent at Canton, has been transferred to the collection department at Peoria.

H. T. Board, commercial agent at Peoria, has been transferred to the collection department.

F. Rutledge, commercial agent at Peoria, has been transferred to the collection department.

Central Union operators of Peoria gave a delightful dancing party at the Knights of Columbus Hall on the night of February 16th. The Illinois orchestra furnished the music and the affair proved so thoroughly enjoyable that plans are already under way to give another at an early date. About seventy-five couples

TELEPHONE WIRES**ENAMEL,
SILK,
COTTON,****Magnet Wire****PROMPT DELIVERIES****ROME WIRE COMPANY****ROME, N. Y.****RELIABLE CABLE HANGERS
AND
COPPER WIRE CONNECTORS****For Telephone and Electric Wires****All sizes from No. 0000 to No. 19 gauge
Split and Combination sizes****Write for Samples and Prices****RELIABLE ELECTRIC CO., CHICAGO**

were in attendance and the chaperons were Mr. and Mrs. P. E. Keltner, W. E. Langhoff, and Mr. and Mrs. Cummings.

Quincy District

Contracts have been secured from the Standard Oil Company for a new private branch exchange of three trunks and nine stations.

C. G. Gordley, late plant department record clerk, made a flying visit to Quincy and was married on the morning of January 31st to Tilly Swartz. Mr. Gordley is now employed by the Western Electric Company.

Ray McIntyre, tester in the plant department at Quincy, surprised his friends by being secretly married at Hannibal, Mo., on January 25th.

Charlotte Graff, traffic clerk, resigned February 1st to accept a position with the Standard Oil Company as stenographer and operator of the new private branch exchange.

At a card party given by Georgia and Delma De Crow, the engagement of Georgia De Crow and John H. Champion was announced. Mr. Champion was manager of the construction work done at Quincy.

Rock Island District

A new private branch exchange consisting of four trunks and nineteen stations has been installed in the City Hall at Moline. The board is a No. 4 type, finished in brown weathered oak to match the woodwork and furniture. The commissioners are highly pleased with its success. A peg count was taken about two weeks after it was installed and 147 originating calls were counted in one day—a good day's business for such a location. It makes a fit piece of work for such a good building, as the new City Hall is a beautiful piece of architecture, constructed of white Bedford stone exterior and marble and oak interior.

The operators in this district have a falling for "shows," two theater parties having been enjoyed by them last month. The Moline girls attended the "Fire Fly," while Rock Island's force graced the auditorium of the Illinois Theater at a performance of "Peg O' My Heart."

Maxine Shehan of the local traffic force has accepted a private branch exchange position at the Harper House.

The traffic department has been kept busy this past few days learning the mysteries of standard multiple marking, which is being installed at present.

Archibald Eddy of the commercial department has accepted a position with the Chicago Telephone Company in the same department. "Archie" left a big hole in Rock Island, and all hated to see him go.

The commercial and traffic district offices are expecting to move into the new quarters by March 1st, thereby giving the local traffic department more room.

A new private exchange consisting of two trunks and seventy-eight stations has been installed at the Rock Island House, which has recently been overhauled and remodeled.

Lyle Reynolds, previously of the plant department, has been transferred to the commercial department.

Springfield District

Gertrude Jennings, local operator, resigned January 31st to be married to Thomas Grogan, of Joliet, Ill. The ceremony took place at the Immaculate Conception Church, on February 6th at 5:15 p. m. They will reside in Joliet.

Hattie Peek, local supervisor, has been confined to her home by illness.

A sleigh ride was enjoyed by about thirty of the local and toll girls on Saturday evening, January 31st.

Miss Bressnan entertained about twenty of the toll girls and their friends at a birthday party in honor of Kathryn McDonald on Tuesday, February 3rd. The evening was pleasantly spent, and refreshments were served at a late hour.

The toll girls gave a dancing party at the Murphy Dancing Academy, February 6th. About thirty couples were in attendance.

Margaret McGurk, toll operator, entertained the members of the Fiducia Club and their friends Tuesday evening, January 27th. The evening was spent in playing hearts. A four-course luncheon was served about midnight.

The Bell Telephone Girls' Gymnasium class of the Y. W. C. A. meets each Monday evening at 6:15 for club supper. After supper, gymnasium exercises are practiced from 7 until 8 o'clock. A business meeting is then held, after which basket ball and other games are enjoyed.

Wisconsin Division

T. N. Moore, Correspondent,
Milwaukee

Appleton District

The Freedom Mutual Telephone Company, a roadway company connected with the Little Chute exchange, has ordered material for three new circuits, which will give a total of nine circuits. Forty new subscribers will be added to the present number, seventy-six.

The Twelve Corners and Mackville Telephone Company, connected with the Appleton exchange, has about completed the building of three additional circuits with thirty subscribers. This will give this company a total of seventeen circuits and 197 subscribers.

The Kimberly-Clark Company at Kimberly has installed a private branch exchange of two trunks and six stations.

Four solicitors at the Appleton exchange have secured seventy-one new subscribers and regraded nine subscribers' contracts in two weeks.

Inez Lewis, operator at Berlin, spent a week at Davenport, Ia.

The Elliott Company, of Berlin, has been awarded the contract covering repairing and remodeling the Berlin exchange building, which, when completed, will bring the Berlin exchange up to date in every respect.

The Berlin Telephone Company, a connecting company of the Berlin exchange, held its annual meeting on January 21, 1914, re-electing all old officers. A six per cent. dividend was declared and the company anticipates a busy season in 1914.

Considerable sickness has prevailed among the operators at the Green Bay exchange. Among those affected were Esther Sullivan, chief operator; Ella Pfeifer, assistant chief operator; Clara Pfeifer, supervisor; Lillian Hogan, toll operator, and Clara Reimer, supervisor.

Traffic meetings are being held at the Green Bay exchange and very good results are being obtained.

The Wisconsin Telephone Girls' dancing party at the Moose Hall, Wednesday evening, assembled a large gathering of twin city young people. It is estimated that 150 participated in the evening's pleasure, the music for the dance program being rendered by

Montpas' Orchestra. The hall, with its beautiful decorations and its brilliant illumination, presented an inspiring scene with the many dancers upon the floor. Frappe was served throughout the evening. All the latest dances were on the program. The success of the premier party of the operators at the local telephone exchange was repeated at the function of Wednesday evening, the party being a signal success financially and socially.—Daily Eagle-Star, Marinette, January 21, 1914.

Foreman C. Phiefer has completed the work of stringing five additional rural lines out of the Omro exchange. Forty new rural subscribers were added to the exchange.

C. H. Monahan, commercial agent at Oshkosh, has secured a contract for cordless exchange at the Harmon Agency, a large insurance office.

W. E. Hinz, commercial agent at Oshkosh, has secured a contract for a cordless exchange from R. Brand & Sons Company factory.

At a meeting held at Oshkosh for the plant employees on January 29th, seventy-two questions out of the seventy-five asked were answered correctly.

The Red River Telephone Company, connecting with the Shawano exchange, held a meeting a short time ago, at which a ten per cent. dividend was declared. This company has been in operation a little over a year and has seventy-four subscribers.

The Marion and Northern Telephone Company will move its office at Clintonville, Wis., about one-half block north of the present location. All the material necessary to do the work has arrived. In addition to this the company will put up about 600 feet of 200-pair cable.

Manda Haines is filling the position of Morse operator at the Sturgeon Bay exchange while Anna Calomb is out of the city temporarily.

Wesley Long, lineman at the Sturgeon Bay exchange, spent three days at Fish Creek during January, assisting Mr. Doolittle, superintendent of the State Park, to string wire and install telephones in the park.

The Comet Telephone Company now connects with the Wisconsin Telephone Company's lines through the lines of the Marion and Northern Telephone Company at Tigerton. This company has built eleven miles of line and has seventeen subscribers.

Eau Claire District

Viola Germane has taken up the work of relief operator at Stanley, succeeding Jennie Johnson.

Alma Retelstorf has resumed her duties as toll operator at Menomonie after spending several days at Minneapolis.

Foreman P. R. Keene and crew are now in Eau Claire, having started on the estimate covering additional cable and pole line facilities. They expect to have the work completed by May 1st.

Loa McCluskey, assistant chief operator at Eau Claire, has resigned and is succeeded by Hazel Webster, formerly toll supervisor.

The installation of the pay station attendant's desk in the Galloway House at Eau Claire has been completed and an attendant placed in charge.

Janesville District

Hazel Powers, local supervisor at Janesville, spent a few days with her mother in Minneapolis, Minn.

Marie Grinnell, chief clerk at Janesville, spent a few days with friends in Milwaukee.

A number of the Janesville employees attended a dance given by operators of the Evansville exchange.

NATIONAL

Double Tube Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

A two by four cordless private branch exchange has been installed at the Janesville Motor Company factory.

L. Huggins has succeeded H. Trestal as installer at Janesville. Mr. Trestal was transferred to Madison.

E. A. Green, formerly of the Central Union Telephone Company in Indiana is employed as commercial agent at Beloit.

The Western Electric Company has completed installation of additional apparatus in the Main exchange at Beloit.

S. L. Whalley, lineman No. 2, who was injured in an accident at Beloit, December 29th, 1913, has fully recovered and returned to his regular duties.

On Tuesday evening, January 20th, the Evansville telephone girls gave a dancing party, entertaining about 110 couples. Everyone reports a very enjoyable evening.

A bob-ride was enjoyed by the operators of the Janesville exchange on the evening of February 19th, after which all were invited to the home of Marion Vanderlyne, where delicious refreshments were served.

The Baker Manufacturing Company, of Evansville, has contracted for a No. 1 private branch exchange of nine stations to be installed as soon as the material can be obtained.

Madison District

Myrtle Owen, chief operator at Juneau, has resigned her position to be married. Rose Hinkes has been promoted to the position of chief operator and Marie Becker takes Miss Hinkes' place as operator.

E. Comeford, former troubleman at the Madison exchange, has been appointed manager at Lancaster, to take the place of F. J. Anderson, transferred to the plant department at Madison.

C. E. Mayer, local manager at Horicon, while skating up the river, skated into some open water, where men had been fishing. The momentum carried him across the opening and he landed on the other side, striking his head on the jagged edge of the ice. His scalp had a long gash in it and his face was black and blue from the fall, but otherwise he was not injured.

Subscribers at the Horicon exchange have been showing their appreciation of service of late by writing complimentary letters to the

telephone employees. Several of these letters have been received during the month of January which will certainly help those concerned to give still better service and to cooperate with the public.

On January 30th Alvira Thomas, Morse operator at Baraboo, entertained a number of her friends. A Dutch supper was served, the menu consisting of saurkraut, weiners, pretzels, pompernickel and limburger. "Ach Himmel, vat a time there vas!"

Edna Dollard, toll operator at Baraboo, who has been off duty for some time on account of sickness, has returned.

Theresa Dwyer, chief operator and Alta Cleveland, toll operator at Baraboo, attended a basket ball game followed by a dance at Reedsburg, February 2nd.

Cupid has again entered the ranks of the office force at the Stoughton exchange. Mae Pierce, chief clerk, is wearing a large solitaire diamond on the third finger of her left hand.

A. D. Bullerjahn and S. E. Slattery, former clerks at the Madison district office, were guests of P. J. Brewer, district wire chief, on St. Valentine's Day.

H. Schroeder, district plant chief at Madison, has just recovered from an attack of bronchitis.

R. J. Elfer, district cableman of the Madison district, was married to Cora Eggan at Chicago, February 7th.

Milwaukee District

Kenneth Savee has been employed as repairman at Waukesha, succeeding C. G. Fender.

A cordless private branch exchange of one trunk and five stations has been installed in the office of the Wisconsin Butter and Cheese Company, Waukesha.

Anna Stoeckel, toll operator Waukesha exchange, who has been absent four weeks on account of tonsillitis and la grippe is rapidly recovering and expects to resume her work soon.

Mayme Houlahan, operator at Waukesha, resigned her position January 15th on account of the death of her aunt Mrs. P. Houlahan.

The operators presented a carving set as a wedding gift to Mrs. J. W. Hale, formerly Ada Schantz, operator at Waukesha.

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Division Offices

Edith Williamson, formerly clerk in the district commercial manager's office, has been transferred to the commercial superintendent's office, and Josephine Harrigan, formerly in the commercial superintendent's office, has been transferred to the district commercial manager's office.

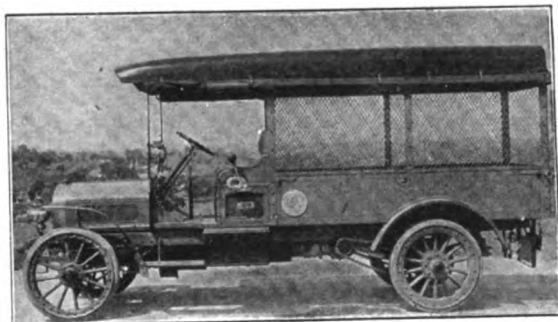
A. C. Cronkhite, district commercial superintendent of the Western Union Telegraph Company, is now located on the second floor of the Telephone Building, and the fact that he has now been given the state of Indiana instead of portions of three states will make it very convenient to transact business that affects the Western Union for the whole state.

Central District

During January the following appointments were made in the offices of the Indianapolis traffic department: C. C. Mason, of the traffic superintendent's office, was appointed chief operator of the Main and Circle offices; C. V. Hollis was appointed chief operator of the North office; Marie Brethauer was appointed chief operator of the Prospect office; Anna Dugan was appointed chief operator of the Woodruff office; Mrs. Nora Jones was appointed chief operator of the Belmont office; Inez Johnson was appointed assistant chief operator of the North office; Ethel Brosnan was appointed supervisor in the Main office.

The chief operator of the Main office held a supervisors' meeting January 26th. Various operating conditions were discussed over a cup of tea.

The Woodruff operators entertained for their former chief operator, Mrs. Nora Jones, on January 13th, at the home of Miss Grosvenor. It was in the nature of a surprise party, and a beautiful floral offering was presented to the guest of honor.



100 Mack Trucks

In Actual Service of **TELEGRAPH** and
TELEPHONE COMPANIES Alone is the
Mack's Surpassing Record.

Bell Telephone Co. of Pennsylvania
Chesapeake & Potomac Telephone Co.
Chicago Telephone Co.
Pacific Telegraph & Telephone Co.
Southern New England Telephone Co.
New York Telephone Co.

A few big users of Mack Trucks in a single industry.

International Motor Trucks
TRIUMPH OVER EVERY COMMERCIAL OBSTACLE

Mack and Saurer
TRUCKS FOR EVERY PURPOSE

International Motor Company
General Offices: Broadway and 57th St., NEW YORK

Fasten Your Telephone Equipment

to walls, floors and ceilings of Stone,
Cement, Brick or any hard substance
with



SEBCO
Expansion
Bolts and
Screw Anchors



They are time, labor
and money savers and
assure the quickest,
cheapest and most
secure means of fast-
ening motors, switch-

boards, insulator brackets, cable hangers, bridle rings,
cable clamps, insulators, lamps, telephone sets, etc.

SEND FOR CATALOG AND SAMPLES

STAR EXPANSION BOLT CO. 147 Cedar St. New York

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

THE EVERSTICK ANCHOR CO.
ST. LOUIS, MO.

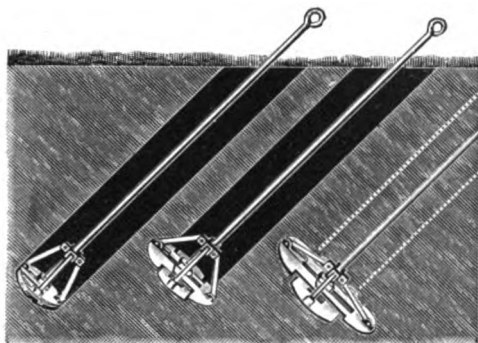


Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.

Reliable
telephone service
is
only possible
when the lines are
of

Western Electric
LINE
CONSTRUCTION MATERIAL

Then uniformly satisfactory service is assured.

By making that clear to the telephone men in your territory, you can lay the foundation for better service conditions.

Another thing—we carry everything for the pole line—our stocks are large.

The North operators surprised Anna Dugan, their former chief operator, with a party at her home on January 15th. A beautiful cut-glass water set was presented to her by her former associates.

Jessie Belding, one of the Woodruff operators, resigned during January to be married to George Roessler.

Elizabeth Kennedy entertained a number of the Prospect operators at her home on Wednesday evening, February 4th, with a children's party. The decorations were carried out in hearts and Cupids. A most enjoyable evening was spent.

Amy Murray, one of the local operators, has returned to her home at Lima, Ohio.

Northern District

Eleanor Cook, toll operator at South Bend, has been promoted to toll supervisor to succeed Lura Whiting, who returned to her former home in Wenona, Ill.

Mrs. Ora Gerard, former chief operator at Mishawaka, has again taken a position in that office after an absence of nearly two years.

Mrs. Florence Weber, who resigned from the operating force about three years ago, has returned and accepted a position as toll operator in the Elkhart office.

Anna Wagner, South Bend toll operator, has been transferred to the sickness disability list. She hopes to be able to return to duty in a few weeks.

The toll operating force at Goshen, where the toll office is in the exchange quarters of the Home Telephone Company, are very highly pleased with three beautiful tapestry rugs recently provided for them by the Home company's officials.

Tressa Brown, night toll operator at Alexandria, has resigned and is succeeded by Jennie Miskel.

The Blue Bell Club of Peru held a social meeting January 25th at the home of Ruth Horne. The evening was spent in singing and dancing and concluded with a two-course luncheon.

C. R. Long has been appointed chief operator at Muncie, succeeding Miss Porter, transferred to chief toll operator.

Edith Stewart of Peru was married to Floyd Flora on January 31st. Their future home will be in Warren, Ohio. Miss Stewart being the first member to be married, the T. B. B. Club gave a linen shower in her honor February 6th at the home of Florence

Davis. The evening was spent in singing, dancing and contests in which Miss G. Weaver and Miss N. Holland won the prizes. An indoor picnic was held at the home of Edna McConnell of Peru Wednesday evening, February 4th. A luncheon was served and an enjoyable evening was spent by all present.

The sleet storm the night of January 31st did a great deal of damage in Elwood and Alexandria territories to local, farmer and toll lines. On the Anderson-Marion three-arm lead there were two fifteen-pole breaks just south and north of Alexandria, besides three other similar ones between Alexandria and Marion. A great deal of twisted pair was necessary in making temporary repairs. B. G. Halstead, district plant chief, Manager Porter and wife and Chief Inspector Carpenter motored across in the latter's machine to see the breaks. Next morning at four o'clock the Alexandria Opera House burned. The front three-story brick wall cut the entire Alexandria-Marion lead in two. Owing to the sleet storm that morning there was no car service from Elwood to Alexandria until 9 a. m., when Manager Porter and Chief Inspector Carpenter with a gang of men left Elwood to assist W. B. Hartley, repairman, and Lineman Sparks, who were among the first on the work at 4 a. m. Repairs were promptly made. The *Times-Tribune* of Alexandria, Ind., stated: "Mrs. Berdie Kirkman and Miss Laura Wharton, night operators, sent in the alarm for the fire department. The telephone operators worked overtime, and although the fire was within the same block, they succeeded in arousing hundreds of people from their beds to assist in fighting the fire. Owners of the stores located in the building and Fire Chief Merker were notified first. Mayor Whales and Chief of Police Donahoe arrived at the scene of the fire shortly after the telephone operators had notified them. The work of the firemen, both Alexandria and Anderson, and the telephone operators are deserving of special mention." On Thursday evening, January 8th, the operators at the Avilla and Kendallville offices enjoyed a sleigh ride, going to the home of Edith Rauh.

Martha McCoy, who has been ill for several months, is still unable to resume her duties at the Kendallville office.

St. Valentine's Day was celebrated in the South Bend exchange territory by a card and dancing party held in the telephone building Saturday evening, February 14th.

The commercial, plant and traffic departments were all well represented and the total attendance, including employees from Elkhart, Goshen, Osceola and Mishawaka, was about 100. The vacant rooms on the third floor of the building were used for games and dancing, and an excellent lunch was served in the rest room on the second floor. The rooms were all decorated in a manner appropriate to the occasion, including some beautiful lighting effects produced by the skillful use of switchboard lamps intermingled with the decorations and connected by means of invisible wiring. The dancing began at 8 o'clock and continued until the clock struck Sunday morning. That the details of the event were carefully planned was indicated by a notice posted in a conspicuous place in the dancing room, which read, "No Tango Dancing—unless you want to." As there was only one person present who knew how to dance the tango, the rule was quite generally observed. All participants in the party declared it the most enjoyable affair ever held in the South Bend exchange.

The P. T. Club of Peru held a social meeting Thursday evening at Dora Kemp's and spent the evening in singing and dancing. A two-course luncheon was served.

Gladys Sulsar, night operator at Peru, was married January 14th to Thomas Evans. She gave up her night position at Main and took divided hours at Broad.

Elanor Joachim, clerk at Shelbyville, is on sick leave. Her place is being filled by Mayme Burkner, ticket clerk, and Agnes Heusman is filling the place of Miss Burkner.

Freda Rinehart, toll operator at Shelbyville, was married on Sunday evening, February 1st, to Frank Amsden, of Waldron. Mrs. Amsden will continue her service with the company until next April.

Catherine Farrell entertained several of the Shelbyville operators at a theater party on her eighteenth birthday.

Nell Galloway resigned her position as operator to accept a position as clerk in one of the insurance offices of Shelbyville.

Lucy Ruggles, local operator, who has been absent on account of sickness, has returned to duty at Shelbyville.

Mabel Quinlan, toll operator, has resigned her position at Shelbyville and will remove to Cincinnati, Ohio, her former home, and will work for the telephone company there.

Shelbyville exchange was more fortunate than its neighbors in the recent sleet storm. Decatur County had more than 200 poles

down and almost all city subscribers were out for more than a day. Fayette County also was a heavy loser.

Shelbyville exchange has just completed the installation of a new set of batteries. Work was done by the local force.

Southern District

A birthday party was given at the home of Mattie Harms, chief operator at Terre Haute, on January 17th, in honor of Nelle Smythe, local chief operator; Jessie Short, local supervisor; Laura LeForge, toll operator; Edna Toy, toll operator, and Grace Smith, toll supervisor, all having birthdays during the week. The evening was spent in dancing, playing rum and fortune telling. A delicious luncheon was served. The table decorations were carnations. The guests were all toll operators, the local chief operator's clerk and B operators.

Edith Koebert is back again in the long distance office at Terre Haute after being absent for some time. She had been living in Milwaukee.

Celia Reisman, collector at Terre Haute, has been off duty for a few weeks on account of acute laryngitis.

Pauline Hanger, toll operator at Terre Haute, has been spending two weeks' leave of absence in Indianapolis.

Harold Martin, who has been connected with the commercial department at Terre Haute, resigned to accept a position with the Indianapolis Light Company.

C. N. Sears of the plant department in Indianapolis has been doing the clerical work in the Terre Haute office during the absence of David Evans, who was on the sick list.

Mattie Harms, chief operator at Terre Haute, was unfortunate enough to run a nail into her foot on February 8th. The accident confined her to her home for several days.

Spencer was visited by a very severe sleet storm early Saturday morning, January 31st, which put all of the toll lines out of service and cut all wire communication in every direction. Temporary repairs were rushed and lines established to many points on Saturday. This is the worst sleet storm that has visited Spencer in many years. Much damage was done to both telephone and telegraph wires.

Esther Smallwood has been promoted to information operator at Bloomington, succeeding Roxie Burks.

Cleveland Division.

W. K. Lawrence, Correspondent.

Aid Society Banquet

On Tuesday evening, January 20th, 350 members of the Cleveland Telephone Company Employees' Aid Society attended the banquet held at the Elks Hall on Huron Road. The fore part of the evening was spent in enjoying a splendid dinner, cigars and refreshments. Immediately after dinner, the newly elected officers for the coming year were announced and are as follows: President, F. W. Harrington; Vice President, T. W. Johns; Treasurer, A. H. Kirkwood; Secretary, A. T. Hood; Trustees, P. Yensen, E. E. Ranney, J. J. McCarty, H. R. Bowen, J. D. Templeman.

During the rest of the evening, the members were entertained by some of the best vaudeville talent obtainable in Cleveland.

With Commercial Agents

N. J. Fargue, one of the live wires of the sales force, secured contracts from the following subscribers for private branch exchanges during the past month: St. Ann's Maternity Hospital, 3409 Woodland avenue, S. E., a No. 4 switchboard, two trunk lines and eight stations; the Wood & Spencer Company, 1930 East Sixty-first street, a cordless switchboard, one trunk line and six stations; the Yuster Axle Company, East Seventy-second street and L. S. & M. S. tracks, a cordless switchboard, one trunk line and six stations.

A contract for a private branch exchange was secured from Henry M. Calvert, 401 American Trust building, by Charles Ellert. The equipment will consist of a cordless switchboard, one trunk line and six stations. Mr. Ellert also secured a contract from the City of Cleveland, 1445 East Third street, which will consist of a No. 4 switchboard, three trunk lines and eleven stations.

Sam Amm wrote a private branch exchange contract for the B. R. Deming Company, Fairmount and Coventry roads, over the counter the other day. The equipment will consist of a No. 2 switchboard, two trunk lines and six stations.

Through the efforts of I. W. McKee a contract for a private branch exchange was se-

cured from A. H. Fiebach, 818 Society for Savings building. The equipment will consist of a No. 2 switchboard, two trunk lines and six stations.

A contract for a private branch exchange which will consist of a No. 4 switchboard, two trunk lines and six stations was secured by G. V. Shaw from the J. B. Moos Company, 512 Huron road.

L. F. Barkhauer secured a contract for a private branch exchange which will consist of a No. 4 switchboard, three trunk lines and thirty stations.

A private branch exchange will be installed at the Brooks Oil Company plant, C. & P. and Erie R. R., which will consist of a No. 4 switchboard, one trunk line and seven stations. Contract was secured by Jack Davis.

Traffic Department Affairs

A very interesting and delightful entertainment was given by the operating forces at East Office on the evenings of January 8th and 9th. The well rendered program was opened with a song of greeting by the East operating employees. This was followed by solos, piano selections, readings, fancy dancing, and a one-act sketch entitled "District School," which was so humorous and well portrayed that it quite took the audience by storm. Last but not least the East Office "yell" was given with enthusiasm and zest. On January 9th Mr. Sullivan of Chicago added greatly to the evening's entertainment by singing several vocal selections in a most enjoyable manner. At the close of the program ice cream and cake were served and the remainder of the evening was spent in dancing. The invited guests were: Mr. and Mrs. Norman Anderson, Elizabeth Thomas, Mr. and Mrs. J. W. Brady, Mr. and Mrs. W. F. Johnson, Mr. and Mrs. H. L. Schneider, Mr. and Mrs. E. G. Niemeyer, Mr. and Mrs. E. J. Hanrahan, Edith Campton, Minnie Spencer, and Chief Operators Miss Brady, Miss Reilly, Miss Price, Miss Spencer, Miss Spall, Miss Casey, Miss Gahn, Miss Meyers, Miss Yokel, Miss Klein and Mabel Hiller, contract department.

Edythe A. Prouty, who is in charge of the stations department of the Cleveland Public Library, with nineteen members of the Library Class of the Western Reserve University, were guests of Minnie Spencer, social secretary of the Cleveland Telephone Company, Wednesday, January 31st. The class

TELEPHONE WIRE

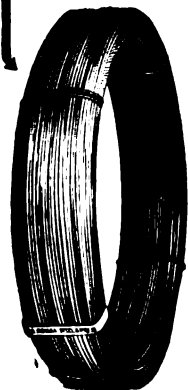
We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.



Write for FREE SAMPLE
Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



The "Dreadnaught" Brazed Steel Gasoline Blow Torch

Made to deliver the Hottest Fire and to withstand the Hardest Knocks and has made good and stood the service test of the Telephone Companies.

No soft Solder to melt or crack. Large Pump, quick starting Burner.

Convenient Filler service.

Let us quote you.

The P. Wall Mfg.
Supply Co.
PITTSBURGH, PENNA.

was conducted through the operating rooms and operators' rest rooms of the new Main Office, after which refreshments were served in the operators' dining room. The Library Class is composed of young women from all sections of the United States who are taking a special course in the university with a view to taking up library work as their vocation. Mr. Anderson gave an interesting talk on operating methods and an outline of what the Cleveland company is trying to do for its employees. Mr. Schneider, Main office manager, and Miss Spall, Main chief operator, explained something of the duties of their positions in relation to the operating forces and the public. Miss Spencer spoke briefly of the pleasure and profit which our people derive from the use of the books in the nine branches of the public library which have been installed in the company's offices.

Personals.

Mrs. Norman Anderson, assisted by Elizabeth Thomas, entertained informally from 2 to 5 Saturday afternoon, January 31st, at her home, 39 Elsinore street, East Cleveland, with a buffet luncheon in honor of Mabel Kenney of Chicago. Spring blossoms were tastefully used throughout the rooms. The guests were: Chief Operators Miss Brady, Miss Reilly, Miss Price, Miss Spencer, Miss Yokel, Miss Klein, Miss Kramer, long-distance chief operator; Miss Campton, chief instructor in the School, and Miss Spencer, social secretary. Miss Kenney, who has been making a special traffic study for the Cleveland company, returned to Chicago, February 6th.

A number of Main office girls spent a very pleasant afternoon and evening at the home of May Lacey on East Seventy-sixth street, January 18th. A delightful repast was served by the hostess and the time was spent in listening to vocal and instrumental music by the different guests. Those present were Christine Nemec, Minnie Marsale, Margaret Wagner, Rose Quinn, Catherine Williamson and Christine Reichel of the Main office and Agnes Haver of the Ridge office.

On Wednesday evening, January 21st, Florence Pleasence gave a miscellaneous shower at her home on Wyandotte avenue for Olive Springer, whose wedding will take place in the near future. Miss Pleasence's home was tastefully arranged with roses throughout and everyone of the twenty-five Marlo operators who attended thoroughly enjoyed the dainty lunch that was served. The greater part of the evening was spent in singing and playing games. Miss Springer received a number of pretty gifts from her friends. Mr. Wilson, the groom-to-be, said "That he would always have the highest regard for telephone operators, because it took one to capture him."

Ohio Division

**B. T. Calaway, Correspondent,
Columbus**

P. B. X. Development at Columbus

The following private branch exchanges were installed during January:

Athletic Club of Columbus, cordless board, two trunks, five stations.

American Guaranty Company, No. 2, intercommunicating, one trunk, five stations.

Fenton-Bard Shoe Company, No. 2, one trunk, five stations.

The Brightman Manufacturing Company, No. 2, one trunk, five stations.

Howard & Merriam Company, Architects, No. 2, one trunk, five stations.

The Drovers' Union Stock Yards Company, No. 2, one trunk, five stations.

City National Bank, No. 2, one trunk, five stations.

The R. E. Jones Company, Funeral Directors, No. 2, five stations, one extension bell, one trunk.

Total number of stations for Columbus, January 1, 1914, 22,672.

Akron District

The Youngstown exchange building is being enlarged to take care of the change from the 5,600-line board to the 9,600. It is expected the new board will be installed some time in March.

T. R. Cookston, chief clerk at Youngstown, has resigned to take up work as salesman with the Washburn-Crosby Company. His position will be filled by J. A. Adams, formerly chief commercial agent at Toledo.

Foreman A. E. Holmes, of the state construction department, is completing an estimate for additional cable at Youngstown. This estimate was held up on account of the excessive storm trouble last summer, and its completion is anxiously awaited by the commercial department, as the Bell service is very much in demand at Youngstown.

J. G. Harlan, commercial agent at Youngstown, has been transferred to Cleveland, and is now clerk in the office of J. P. McGahan, plant accountant.

Columbus District

Lorin R. Landis, clerk in Plant Superintendent Cherry's office at Columbus, and Cora Leona Cline were married on the evening of December 26, 1913, at the home of the bride on Hawkes avenue.

P. B. Nelson, formerly yardman, succeeds W. J. Lindsey as barn foreman.

Harry J. Cline, private exchange repairman, was on the sick list for a week during January.

L. E. McCardle, toll testman, has been transferred to the district toll wire chief's department.

The wedding of Claude Milbourne, local testman, Main exchange, and Ethel May, B operator at the Main exchange, took place on Wednesday, January 14th. Mr. and Mrs. Milbourne are at present living at 698 Germania street.

On January 10th three new Harley-Davidson five-horsepower motorcycles were placed in service at Columbus, two of which are for the use of Repairmen Davis and Strayer, the third for Installation Foreman Eugene Schneider.

Toledo District

Private branch exchange contracts have been taken with the following companies: The Boss Manufacturing Company, Toledo; the Collier Barnett Company, Toledo; American Plumbers' Supply Company, Toledo; Gallon Iron Works & Manufacturing Company, Gallon.

Toledo and Findlay exchanges have just completed the distribution of new directories.

J. A. Adams, commercial agent at Toledo, has been transferred to Youngstown.

Mame A. Russell, clerk at Toledo, resigned on account of ill health.

Gwen Hepfinger, toll operator at Bowling Green, has returned to her duties after an illness of several weeks.

Hattie Schuchardt, traffic chief at Findlay, has returned to work, having been absent several months on account of sickness.

Cevilla Peter, local operator at Fostoria, resigned and was married on January 22nd to Willus Haykes. She is succeeded by Gertrude Myers.

Florence McCandless, operator at Fostoria, was married on February 4th to Roy Dillon Norma Murshal, toll operator at Sandusky, has resumed her duties after an illness of two weeks.

Michigan Division

**David H. Dodge, Correspondent,
Detroit**

One Telephone Number 32 Years

The Bay City exchange has a subscriber who has had a Bell telephone in his office continuously for thirty-two years. This is Dr. N. R. Gilbert. Dr. Gilbert opened an office in Bay City in the Root block early in the year 1881, subscribing immediately for a Bell telephone. Aside from the changes in type of telephones as the years have passed, a Bell instrument has occupied the same position, in the same office, in the same building, for thirty-two eventful years.

Far from being behind the times on account of age, the doctor has kept pace with the telephone advancement, and recently added additional service to keep in touch with his practice. It is questionable if many men in Michigan have had such a record, covering the occupancy of an office or the use of a telephone.

At the time the telephone was installed, less than 150 telephones were in service in Bay City; in fact, the doctor was assigned number 143, the highest number in use at that time, and has practically kept the same number until the present date. The only change is the digit 1 in the thousand place, his number being increased by 1,000, owing to the increased service in Bay City and the establishment of a branch office. His number is now 1143.

The then small town of Bay City has changed greatly and the telephone development has kept pace with the times. So that, giving this telephone the benefit of our present calling rate per telephone as an example (and we know that the average physician has more calls than an ordinary subscriber), we find that Dr. Gilbert has had in those years 186,880 telephone conversations over a telephone located in the same spot it was placed in thirty-two years ago. Some talk! No one knows the hopes, the fears, and, no doubt, often the blank despair voiced over this line in the long time it has been in service.

Telephone Society of Michigan

Metered service was discussed generally and informally at the meeting of the Society, held January 21, 1914. Commercial Superintendent G. M. Welch and Traffic Engineer Fred Clarke answered questions on the subject. They were kept busy until about 10 o'clock.

Previous to the quiz, the Society had an opportunity of meeting its most recent member, C. G. Sharpe, the new plant superintendent. Mr. Sharpe made a short speech of a sociable nature which made a very pleasant impression on the members of the society, and he was heartily applauded. This meeting of the society was largely attended.

The "French" Folding Door Telephone Booth

(Patent Pending)

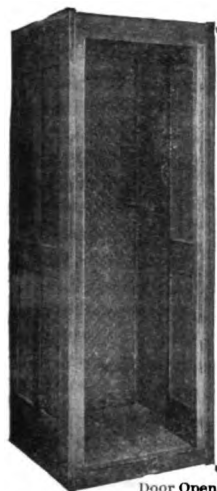
VENTILATION: The design of the FOLDING DOOR is such that the door is open at all times when the booth is not in use. This is the only practical plan for booth ventilation. This is one of the many advantages of the FOLDING DOOR telephone booth.

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

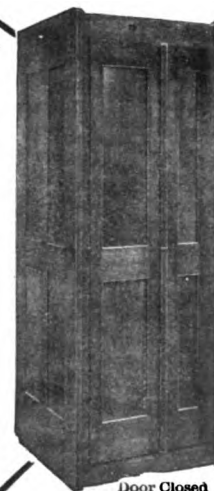
DISTRIBUTORS:

Western Electric Company

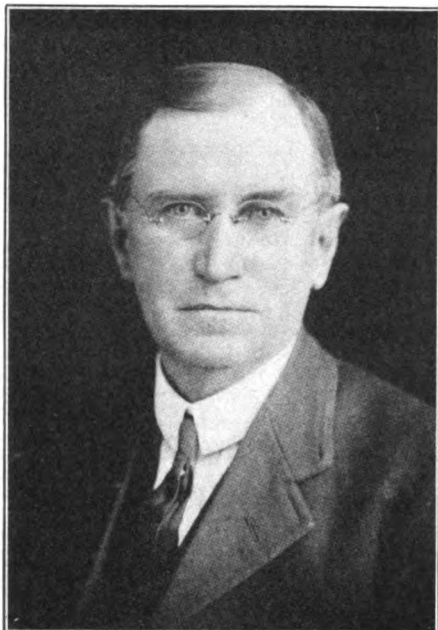
Houses in all principal cities



Door Open



Door Closed



JOHN MORRIS.

John Morris, manager at Buchanan, is the oldest manager in Southern Michigan in point of continuous service, and possibly the oldest in the state.

In the fall of 1881 a toll line was extended from Niles to Buchanan, and a toll station installed in Mr. Morris' shoe store. The first telephone installed in Berrien county was at Niles, where an exchange was opened that year, with Charles Harter as manager; the second telephone installed in Berrien county was in the store of Mr. Morris. As a guarantee of the business if a toll line were built from Niles to Buchanan, Mr. Mor-

ris sold \$300 in coupons. James Beamer, now of Detroit, and Chester Dunbar of Kalamazoo had charge of the work of extending the line. A switchboard was installed and Mr. Morris secured eight subscribers at a rental of \$18 per annum for office telephones, and \$36 for residence service. This board was discontinued after one year's service, on account of the rates being too high, and was shipped back to Detroit. Later on a twelve-jack backboard (so called) was shipped to Buchanan and installed, and in 1896, on account of increase in business, they were obliged to install a No. 3 type of switchboard. During that year forty subscribers had been connected.

This switchboard was installed by P. E. Hurson, now assistant plant superintendent. In 1897 the second switchboard was installed, with 100 subscribers, and in 1908 a third board was installed, the exchange having grown to 400 subscribers.

In April, 1913, the No. 105 type of switchboard was installed by the Western Electric Company, together with a test panel for facilitating the location of faults on lines. The number of subscribers is 630, which includes 265 farmers, the collection standing at Buchanan always being a source of gratification to the company.

P. B. X. Development in Detroit

Among the private branch exchanges and additional equipment installed or ordered in Detroit during the month of January, 1914, were the following:

	Stations.	Trunks.
Detroit Automobile Dealers' Association (new)	10	35
Michigan Insurance Agency (additional)	1	3
American State Bank (new)	4	6
General Sales Co., Auto Supplies (new)	2	7
Scheiwe Storage Co. (new)	2	6
Scripps Booth Co., mfg. motor cars (new)	2	6
Western Union Tele. Co. (additional)	Order table and	9
Lefendary Realty Co. (new)	3	62
Union News Co. (new)	2	6
Standard Accident Ins. Co. (new) ..	2	6
U. S. Radiator Corporation (new) ..	2	5
Star Carpet Cleaning Co. (new) ..	2	5

Mercury Cyclecar Co. (new)	2	5
Fisk Rubber Co. (new)	2	5
The Gleaners (new)	2	5
Baker, Hall & Goldman, Attys. (new)	2	5

Of the total of thirteen new private branch exchange contracts obtained during January, seven were secured by Floyd H. Lockwood and six by Dare S. Burke. The new contracts and the additional supplied a total of 167 new stations for Detroit during January.

Improvements at Ontonagon

G. W. Stannard, local manager of the Ontonagon County Telephone Company, has built twenty miles of line to connect with the Michigan State Telephone Company's line at Winona Mine. The Ontonagon system was rebuilt last year and service in the village is greatly improved.

Detroit Collectors Dine

To celebrate the reduction of "outstanding per station" from \$1.05 to \$0.47, the collection employees of the Detroit District met at a dinner at the Edelweiss Restaurant Wednesday evening, January 28th.

The dinner was given by C. S. Slack, manager of the district. Mr. Slack, the twenty-one employees and three guests are shown in the picture. When the cigars had been passed Mr. Slack arose and said:

"I take it for granted that all of us enjoy the positions we hold so well that there is nothing we will not do to make them still better positions. Organization has done much for us lately. Organized work along certain lines has brought down our 'current outstanding' to thirty-seven cents, and our 'final outstanding' to 10 cents; we have got to bring these figures down still further. And I say now that by the end of this year we must bring the 'current outstanding' to 10 cents. It can be done. It must be done."

"Remember that to you is allotted the duty of bringing in the money which belongs to the Company, the money which pays the expenses of the Company, the money which pays your salaries; also the money which should yield a fair return on the investment. And in this connection I want to say something to you on our attitude to the public. The keynote



Thirty years experience in tool manufacturing has taught us how *not* to make tools as well as *how* to make them.

Were it necessary only to make tools to withstand ordinary usage we would have no tool problems—nor would you.

That's not the kind of tools we make. There's thirty years of experience and reputation back of our tools. Why don't you get the benefit of it?

We sell more outside construction tools than all our competitors put together—**THINK THAT OVER.** You can get them at your regular jobbers if you specify them—but be sure and specify them as the jobbers don't make as much on our tools as they do on some others. See the point?

We supply the Western Electric Co. with practically our complete line. You can order from them.

OSHKOSH MFG. CO.
Oshkosh, Wis.

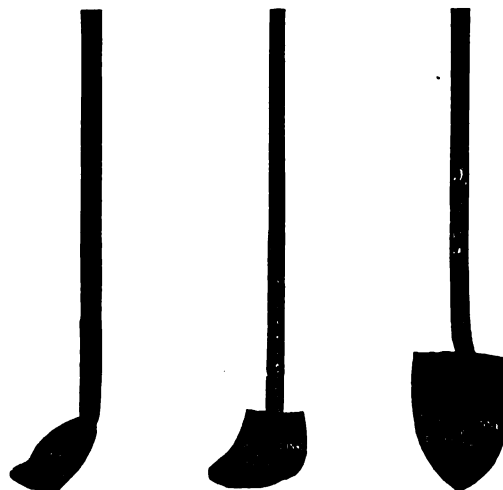
HUSSEY-BINNS SHOVEL COMPANY

Pittsburgh, Pa.

TELEGRAPH SHOVELS AND SPOONS

by the

INGOT PROCESS



The blades of tools represented by above illustrations are manufactured from Crucible Cast Steel, by Hussey-Binns Shovel Company.

The handles are also manufactured by Hussey-Binns Shovel Company from the best qualities of Northern White Ash.



DETROIT COLLECTORS' DINNER.

Beginning at the left end, those seated are as follows: W. J. Wallace, K. J. Sexton, E. C. Smith, C. M. DePew, J. P. Walcott, D. M. Sawhill, R. C. Unger, H. MacGregor, J. A. Rogan, M. Q. Evans, C. A. Marantette, Special Agent G. R. Heywood, Detroit District Manager C. S. Slack, W. A. Cardinal, M. J. Hager, D. H. Dodge of the commercial office, I. M. Hadley, E. C. Schmicking, R. A. Wright, G. L. Gerard, J. W. Van Wert, B. A. Williams, E. M. Steiner of the adjusting department, and R. J. Hall.

of this attitude is the word 'conciliation.' Do not, for instance, tell a patron of the Company when explaining something of which he does not at first see the reasonableness, that 'it is a rule of the Company.' Do not say this as if it were all the explanation the patron were entitled to. Give him the reasons for it all—explain them intelligently and courteously, and don't let him go away without feeling that the Company has in its employ a lot of fine fellows who know their business. You are helping to collect the revenues of the Company, but you must make friends for the Company while you are doing this.

"Study what may be called the psychological moment for collecting money. Explain how the Company is put to certain expenses for installing telephones, maintaining equipment and furnishing service, and how these expenses must be met by revenue."

Mr. Slack then went into some details of the office routine recently established, and cautioned the men against carelessness in handling stubs from the files. He repeated his instructions as to leaving receipts for such memoranda, so that a discontinuance of service might be avoided for some subscriber whose account was really in good shape.

"This dinner, you will remember," he concluded, "was promised you when the 'current outstanding' should fall below fifty cents. It has actually fallen to 37.2 cents, but, I say again that that is still too much."

W. A. Cardinal, supervisor of collections, talked about the credit section. He asserted that every subscriber should be a "good subscriber"—that is, a subscriber whose financial standing was satisfactory so far as his telephone bill was concerned. Care should be exercised always in "signing up" new subscribers.

M. J. Hager also spoke about the credit system, and referred to the question of payments in advance.

E. M. Steiner, of the adjustment department, explained how closely the adjusting of accounts was interwoven with the collecting of them, and compared the system six years ago of "signing up" new subscribers to the more business-like methods of to-day. He also spoke about his

recent trip to Milwaukee, Mr. Slack's former "stamping ground," and told how pleased that gentleman's former friends were at hearing of the successful way he was handling his present problems in Detroit.

G. R. Heywood, special agent, said a few words on the proposed metered system.

C. A. Marantette thought allowances made on bills were in some cases too high. He also told the collectors never to be ashamed of asking help when confronted by a case which was more than usually difficult.

The dinner was a great success in every way. In fact, as a get-together meeting, both social and business, it may be described as ideal.

Detroit District

On January 3rd Mae Durkin, chief operator at Hemlock, entertained her day supervisors, clerk and evening chief operator at her home and was presented with a bouquet of roses. Games were played and a dainty luncheon was served before each departed for her home after having spent an enjoyable evening. The same party was again entertained at the home of Hazel Pearson (supervisor) on January 24th. A delightful evening was spent and lunch was served amid table decorations of black and orange.

Gertrude Facer, Main exchange, resigned January 30th, to be married. The girls presented her with a very pretty cut-glass piece.

Hazel Broderick, evening supervisor, Grand exchange, resigned January 20th, to be married to George Keene. The girls presented her with a beautiful cut-glass water set. Mr. and Mrs. Keene will make their home in Greenfield, Mich.

Pearl Howell, Main B, resigned February 5th—she says to stay at home. The girls believe she is going to stay at home all right, but they also have from very good authority that she is to become Mrs. Rudolph Brown first. A number of girls from the Main and Cherry exchanges surprised her at her home on Friday evening, February 6th, and presented her with several pieces of cut glass.

Edith Roberge resigned her position as assistant chief operator at the East office

January 31st, to be married. The girls presented her with a beautiful cut-glass water set as a farewell gift. Miss Roberge entertained a number of the girls at her home Friday evening, February 6th.

Gladys Norwood, chief operator of the Cedar exchange, formerly relief chief operator of the East exchange, entertained some of the East girls at her home January 29th. A light luncheon was served, and a very enjoyable evening was spent.

Rosella Burleson, Hemlock exchange, was promoted from senior operator to day supervisor.

Gertrude Bauer, Cedar exchange, was promoted from day operator to relief supervisor.

Thursday evening, January 8th, the Grand and Cadillac operators gave their first informal dancing party at Strasburg Academy. Besides regular musical program there were the following very good numbers: Baritone solo, George Abbott; tenor solo, William Fitzgibbons; and three selections by the Tuxedo Quartette. The party was very well attended and all said they had a very good time. The proceeds of this dancing party were used for the Temple Theater party, February 4th, which sixty-eight Grand and Cadillac operators enjoyed, chaperoned by Traffic Chief J. E. Belanger and Mrs. Belanger. Candy from the Kerwin Candy Shop helped also to make the evening pleasant.

About 300 couples danced to the strains of music from Finzel's Orchestra on January 22nd, when the long-distance operators had their second informal dancing party at Strasburg's Academy. Special features of the evening were a snowball and balloon dance, which everybody enjoyed very much. The party was very well attended, it being one of the largest and prettiest of the season.

The first division, Main exchange, were the winners of the last two contests. Ethel McFall, supervisor, and the operators enjoyed seeing George Cohan at the Detroit Theater, Friday evening, January 30th, and went to the Temple Theater February 6th.

The winning first Cherry B division and Supervisor Maude Meredith are planning to hear David Warfield at the Detroit Theater.

Sterling Built to give and gives the kind of service which contractors have long waited for.

Contractors' Barrow Its easy wheeling and long-lasting qualities give the highest degree of satisfaction. It will hold over twice the load of ordinary pan-shaped barrows and will outlast two similar style barrows of any other make.

Among its desirable features are:

- Channel steel legs—16 gauge steel tray—angle iron and v-brace riveted to channel legs.
- Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.

Highest Grade of Inside and Outside TELEPHONE WIRE

☐ Made in accordance with the specifications of the Western Electric Company or those of any other customer.

The Electric Cable Company

17 Battery Place, New York

Boston
Philadelphia

Chicago
St. Louis

Cleveland
San Francisco

Works: Bridgeport, Conn.

The second Cherry A division were the winners of the last contest. Mae DePraw, supervisor, and the girls are planning a theater party.

The second evening B section, Walnut exchange, won the contest for January. Edith Low is supervisor in charge of the winning division.

The four months' contest for Michigan long-distance operators closed January 31, 1914. Prize winners were as follows: Line operators, first, Irene Botts; second, Florence Weitz; third, Irene Morrison; fourth, Gladys Todd; fifth, Kathryn Will; sixth, Edna Will; seventh, Lena Whitman; and eighth, Marion Hill. Recording operators: First, Florence Karney; second, Doris Rogers; third, Lillian Barsky.

Margaret Kopp, long-distance chief operator, spent a delightful two weeks' vacation in Cincinnati, Ohio.

The Villa Dieu Girls are making great preparations for a dancing party to be given at Riverside Temple, at the corner of Baker and Hubbard avenues, on St. Patrick's day, March 17th. This club consists of some of the young ladies of the traffic clerical department, Main exchange, Mabel Kasenow and Hilda McLean being members. Every effort will be made by the girls to make the party a success.

The Walnut chief operator received a very complimentary letter from G. Gwynne Vaughan, a subscriber, who says that the four-party service he has had has been very satisfactory.

An estimate covering poles and aerial and underground cable at Walnut exchange, amounting to \$17,928, was completed February 7th.

Louise Gage is the new timekeeper in the Detroit office in the place of Isabelle Smyth, resigned.

Belle Gould has been transferred from the order department to the front office, where she takes complaints from the counter and reports them to the plant department.

An estimate for new conduit and cable work at Cadillac, amounting to \$12,421, was finished January 29th.

Work started February 7th on the installation of a new telephone order table for the Western Union Telegraph Company.

Eastern District

The rebuilding of the Dexter exchange has been started. The estimate covers removal of all duplicate plant, making cable changes, replacing defective drops, etc., to the total amount of \$500.

The work of the construction crews in removing duplicate plant and rebuilding in Ypsilanti and Ann Arbor is fast nearing completion.

The new farm line magneto position at Ann Arbor, also equipped with L. D. circuits for night work, is now in operation. Fifteen farm lines have been cut over from common battery to magneto.

The work of changing four-party subscribers in Dexter from selective to semi-selective service has been completed.

Installation of new central-office equipment at Plymouth was completed January 30th.

Work of rerouting Ann Arbor toll lines began January 21st.

Work on an estimate providing for \$11,239 of new pole line construction at Ypsilanti was completed January 28th.

Work has been started changing sub-stations at Monroe from magneto to common battery.



WINNING THIRD SECTION, HEMLOCK OFFICE, DETROIT.

The third day section were the prize winners of the Hemlock office and went to see "The Lure" at the Garrick; each girl enjoyed a box of "MacDiarmid's."

The group of girls are, top row, left to right: Mary Watson, Irma Olsen, Myrtle Dean, Minnie Button, Anna Sorenson (clerk), Florence Busch. Lower row: Mabel Woehl (supervisor), Mae Durkin (chief operator), Myrtle Davis and Agnes McHugh. Anna Sorenson and Mae Durkin were the invited guests and chaperons.

Grand Rapids District

Toll chief operators and toll supervisors of the Grand Rapids Main and South offices enjoyed a sleigh-ride party Saturday night, February 7th. About twenty of them took part in the ride. The guests of the party were R. C. Sackett, retiring traffic chief, and G. W. Johnson, incoming traffic chief. The start was made from the Main exchange at 7:30 p. m. They drove fourteen miles to Dutton, where they disembarked at the home of George Butts, who is manager of the company's exchange at Dutton. Mr. and Mrs. Butts make an admirable host and hostess. A very bountiful supper was served at midnight. Various kinds of stunts and games were indulged in during the evening. Early in the morning the party started on its return to Grand Rapids, arriving at 6:30 Sunday morning after a thrilling experience battling the worst wind and snow storm of the season.

Jackson District

Ferne Taylor, local operator at Jackson, was compelled to resign her position owing to ill health.

Lenna Wallace resigned her position as local operator at Jackson to return to her home in Canada.

Gertrude Birney, formerly toll operator at Jackson, has returned after an absence of four months, during which time she was private branch exchange operator for the American Gear Manufacturing Company.

Charlotte Welch, formerly of the Charlotte office, has taken a position as toll operator in the Jackson office.

The basket ball team of the Traffic Department at Jackson is doing good work. The girls look very nice in their suits, a special feature being a blue bell embroidered on the left sleeve of each Bell girl. Miss Walz, Miss Freer and Miss Harris are doing some especially good work. Miss Miller promises to be a star as center.

A contract was recently secured from the American Top Company at Jackson covering a private branch exchange consisting of one trunk and five terminals.

The Y. M. C. A. at Jackson is changing its equipment from a No. 101 private

branch exchange to a cordless switchboard.

Owing to the consolidation of the Commonwealth Power Company and the Jackson Gas Company at Jackson considerable work on the part of the telephone company is being done. The private branch exchange is being moved to the second floor of the building and the capacity of the present exchange, which is now forty telephones, will be greatly increased.

J. E. Bridges has been transferred from the engineering department to the Jackson district as equipment installer.

E. Elliott has been made manager of Concord toll station, succeeding J. C. Root.

A new No. 105 switchboard will be installed at Marshall by Construction Superintendent Gardner.

Kalamazoo District

Repair work on the Kalamazoo-Schoolcraft toll line was completed January 8th, at a cost of \$12,453.

New pole and cable construction to the amount of \$3,228 will be installed at Galesburg.

Lansing District

C. M. Darling, formerly commercial agent, has been appointed local manager of the Lansing exchange.

Marie Cetus, cashier and stenographer at Lansing, has been appointed district stenographer.

Florence Baker, former clerk No. 1, has been appointed cashier.

Loretta Logan, pay station attendant, has been appointed clerk No. 1.

The Howell exchange is being rebuilt at an expense of \$14,000.

The operators of the Howell exchange, who recently organized a basketball team, played their first open game with the Brighton Independent team, January 23rd, at Brighton, the game resulting in a score of 15 and 6, in favor of Brighton. A return game was scheduled for Friday, January 30th, but was cancelled on account of illness of some of the Brighton girls. A game was also played with the Howell High School team, Saturday, January 24th, resulting in a score of 11 to 1 in favor of the telephone team.

Mabel Ribbey, of the Lansing exchange, is wearing a new diamond ring, which she says was a gift from her father. (We have never doubted Mabel's word before.)

Ruth Corwin, Lansing operator, was married January 30th to Jasper Drum.

Leona Croatic, evening chief operator at Lansing, recently completed a long-distance call to St. Petersburg, Fla. This is the longest call remembered to have been completed in this office. The subscriber was greatly pleased with the service.

L. Lougue, of Charlotte, is cable helper now at Lansing in place of J. H. Green, resigned.

L. Currie has been stationed at Lansing as district foreman. Mr. Currie was wire chief at Lansing for several years.

Removal of dead wire and unnecessary cross-arms, etc., in the business district and better residence portions of Owosso is progressing nicely.

Olga Meier, chief operator at Owosso, entertained the girls of the local exchange at her home January 27. Cards and music were enjoyed.

Florence King, toll operator at Owosso, entertained at her home on February 2d for the girls of this exchange.

Work of reconstructing the outside plant at Howell started January 28th. The estimate amounts to \$11,164.

Partridge & Anderson
Designers
Engravers
Electrotypers
Stereotypers
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
AUTOMATIC 31-757 31-758
100-16 N. Fifth Ave. Chicago

ELECTROSE INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS
No. 2 No. 1 No. 7
No. 505 New No. 10 Old No. 10
LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
66-72 Washington St. BROOKLYN, N. Y.
46-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES



Yours for the Asking!

WRITE FOR A COPY

Mailed FREE on request.

It contains a lot of information about tools of all kinds. You'll find it handy. We'll gladly send you a copy without charge.

Mathias Klein & Sons

Canal Sta. 62 Chicago

Phone Wabash 628

Nothing Adds So Much to a Mechanic's Pleasure and Earning Power as Good Tools



No. 32 Torch
Price Each—\$4.00 Net

"Birds of a feather flock together" is an old, true saying. Think of it. Isn't it true that good mechanics have good tools, work for good people, receive good wages, and are good citizens? Good tools and good mechanics come a trifle higher than poor, and they are usually worth it. The No. 32 Torch is acknowledged to be the World's Best, and is used by more mechanics than all other makes. Experience has proven that they could not afford to use any other make, even if they do cost more. Try a No. 32 and you will be pleased.

Jobbers will supply at factory price or we will ship direct if cash accompanies the order. Send for our Catalog. It's free.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A.

Marquette District

"The Blue Bell Girls" of Gladstone gave a dancing party at the Gladstone Opera House on the evening of February 23rd. The dancing began at 9 o'clock and ended at 2:30. District Manager Baker at Marquette reports that almost every citizen in Gladstone bought a ticket. The girls who gave the party were Della Bunno, Adel Wiener, Anna Green, Flossie Baughn and May Valind. A section of No. 105 switchboard has been installed at Negaunee.

Marquette operators gave a dancing party February 16th. They sent invitations in poetry to their friends, like the following:

Ting-a-ling—Hello—This is a Hurry
Call

To invite you to attend our telephone ball.

You won't regret it if you come,
I really wish you'd try.

We'll surely have one grand time,
That's all. Ring off. Good-bye.

This is going to be a great season for thanksgiving, joy riding, entertainments, etc. In fact it has opened up in fine shape. First on the list comes Miss Schrandt, service inspector of the Marquette District. She entertained the traffic, plant and commercial employees of the Marquette exchange at her home at dinner, Monday evening, January 26th, and there were great doings. The decorations especially were fine. There were blue and white streamers, with blue and white bells, each room being decorated differently. When the guests had all arrived a small basket was passed around from which they drew Bell-shaped cards. Upon these cards were inscribed operating phrases, such as, "Number, please," "I will ring them again," "They do not answer," "The line is busy," "This is Marquette," "Detroit for Marquette," and about twenty other phrases. There was a scramble among the great, big strong men who attended the party to learn if any of the beautiful ladies had correspond-

ponding cards. They soon learned, however, that this was not the scheme, and made a rush for the table, where they found Bell-shaped place cards with the same phrases as they had drawn. The place cards were tied with blue and white ribbons running from each place to the electric dome in the center of the room. A few mental efficiency tests were tried out. A large blue bell drawn on white paper was fastened to a sheet. The guests of the party were blindfolded and had to pin the clapper to this bell in the center. Marjory Munro, one of the best local operators in the United States, won the first prize. Mr. Vall, Mr. Kingsbury, Mr. Bell and Mr. Sunny were all at this party. At least, their photos were hung on the wall and every one had to guess who these gentlemen were, and if you guessed right you got a prize. Anna Ourada, chief operator of the Marquette exchange, won first prize. Another one of the games was guessing pictures cut from advertisements, and Mrs. Ongie, formerly Anna Watt, evening chief operator at the Marquette exchange, won the first prize. The guests from out of town were Messrs. Herr and Lane, and Miss Montpas and Miss McCarthy. Everybody had a grand time.

The work of retiring duplicate plant at Marquette began February 2d.

The following toll stations have been installed on the new Houghton-Rockland toll circuit and were opened for service in January: Elm River, Contact Copper Company, managers; Wyandot Mine, Wyandot Copper Company, managers; Stratton Spur, D. A. Stratton Company, managers; Winona Mine, Winona Mining Company, managers; Winona Mine store, H. S. Goodell Company, managers.

A toll station has been opened at Leo, on Circuit No. 5307, a mile and a half west of Covington. Check center, Ironwood. Manager, August Hutula.

A toll station has been opened at Sam-brooks Siding, fourteen miles east of Marquette, on the D. S. S. & A. Railway. F. W. Sambrooks & Son are managers.

Menominee District

The toll station at Parmenter Switch has been discontinued.

David Summerfield has succeeded J. Richards as manager of Brampton toll station.

Work on the Escanaba-Manistique toll line, suspended October 31st, was expected to be completed during February.

Potoskey District

Fouch toll station has been discontinued. to be reopened in May. As there are farm lines in this territory, Fouch will for the present be considered a class D office on Traverse City.

Port Huron District

Manager C. C. Falling of the Port Huron District, recently received a letter from the Aikman Bakery Company, of Port Huron, asking permission to present each girl in the exchange with a package of cakes in appreciation of uniform courtesy and attentiveness given to the bakery company over the lines. Mr. Falling notified the company that there are forty-five girls at the exchange and he would have no objection to their accepting the cakes.

The Western Electric Company started to work on two new local positions and eight new toll positions to be installed at Port Huron. This will give Port Huron sixteen local positions and an entire new toll board.

H. B. Ryan, owner of the Harbor Beach Telephone Company at Harbor Beach, has purchased the entire holdings of the Fremont Farmers' Telephone Company, which consist of the Crosswell, Lexington, Melvin and Peck exchanges.

Saginaw District

Kathryn Bolan, afternoon operator at East Tawas, is spending two or three months visiting relatives in Denver, Colo.

Walter Stafford, president of the Frank-enmuth Junction Roadway Company, came into the Saginaw office the other day with a bushel of apples which he asked to have distributed to the employees as his appreciation of the good service he has had. Mr. Stafford is very well pleased with the roadway basis and states that his service has been fine.

Saginaw collections in January, 1913, were 49 per cent. collected, whereas the January collections for 1914 stand 91 per cent. collected. This is some improvement.

An estimate covering farm-line construction at Bay City was started February 4th.

Roadway Company Notes

A contract has been signed with the North Star Telephone Company to connect eight subscribers to the Potoskey exchange.

The Bricker Telephone Company has signed a contract providing for connecting twenty-two subscribers to the East Jordan exchange.

A contract providing for connection of eight stations with the St. Charles exchange has been made with the Quarter Line Roadway Company.

The Zaring Roadway has signed a contract providing for connection of twenty-four telephones with the Gallen exchange.



MISS SCHRANDT'S PARTY AT MARQUETTE.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

National Pole
Company
Escanaba, Michigan

When you want a Lock
you want the best.

EAGLE
LOCK
CO.

MANUFACTURERS OF
LOCKS
for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



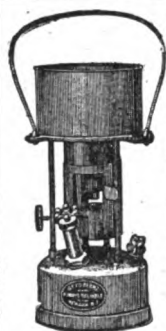
"Thomas Quality"
Porcelain Insulators

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by
Western Electric Company
Offices in all principal cities



If you want the
best furnace on
the market for
YOUR work,
use the "AL-
WAYS RELI-
ABLE" TELE-
PHONE B
KEROSENE
FURNACE.
Most economi-
cal, safest and
most durable
furnace made.
Fitted with
PATENTED
"Never Leak"
Pump and
FUSED steel
tank.

If your jobber does not stock our
goods, write us.

Catalogue sent free on request.

OTTO BERNZ, NEWARK, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



	Each
No. 2521	20c
Doz. lots	12 1/2
100 "	11
500 "	10

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY

Incorporated 1911

ALBERT G.
SEEBOTH
COMPANY
MILWAUKEE, WIS.

Manufacturers of

Cotton Batts, Cotton
and Woolen Waste

Phone Hanover 532

Place your orders with us,
we save you money.

"Beldenite" Rubber Insulated
Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

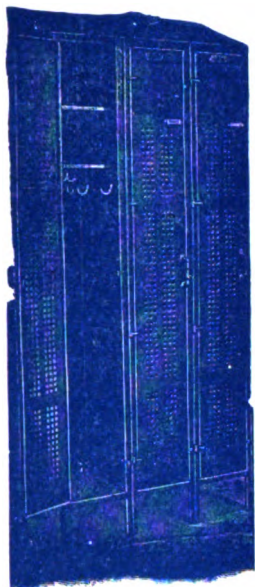
CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue, CHICAGO

ADVERTISING

In the
Bell Telephone
News

BRINGS
RESULTS



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

ANCHORS



Pat. Aug. 19, '13.

that hold more, cost less, don't creep, easier to install. That's the story of **the Bierce Anchor.**

PROOF

All the big, live companies are using them, and lots of them. If you are not, you ought to get in on a good thing.

Write us for testimonials.

THE SPECIALTY DEVICE CO.

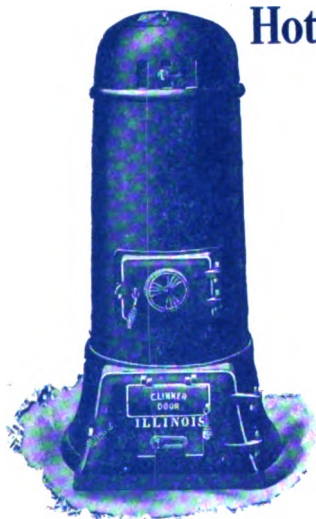
112-14 W. 3rd St., Cincinnati, O.

**HAVE HOT WATER
ALL WINTER**

BY SPECIFYING

THE "ILLINOIS" Hot Water Heater

Magazine Feed



For **HARD** or
SOFT COAL

**EFFICIENT
AND
DURABLE**

**KEEPS FIRE
OVER NIGHT**

Illinois Malleable Iron Co.

CHICAGO, ILLINOIS

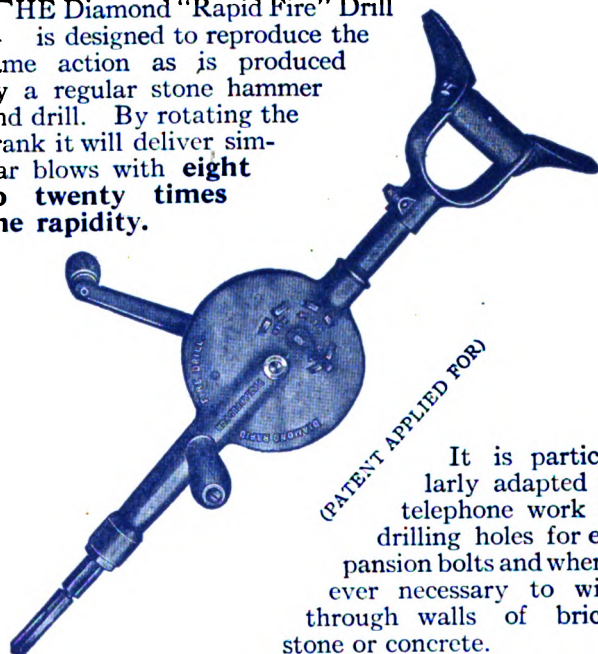
Also manufacturers of a complete line of
Malleable and Cast Iron Pipe Fittings.

Diamond "Rapid Fire" Drill

(PATENT APPLIED FOR)

For Economically **DRILLING HOLES IN BRICK, STONE
OR CONCRETE**

THE Diamond "Rapid Fire" Drill is designed to reproduce the same action as is produced by a regular stone hammer and drill. By rotating the crank it will deliver similar blows with **eight to twenty times** the rapidity.



(PATENT APPLIED FOR)

It is particularly adapted to telephone work in drilling holes for expansion bolts and wherever necessary to wire through walls of brick, stone or concrete.

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 West Street, Corner Cedar

New York



The Spirit of Service

WHEN the land is storm-swept, when trains are stalled and roads are blocked, the telephone trouble-hunter with snow shoes and climbers makes his lonely fight to keep the wire highways open.

These men can be trusted to face hardship and danger, because they realize that snow-bound farms, homes and cities must be kept in touch with the world.

This same spirit of service animates the whole Bell telephone system. The linemen show it when they carry the wires across mountains and wilderness. It is found in the girl at the switchboard who sticks to her post despite fire or flood. It inspires the leaders of the

telephone forces, who are finally responsible to the public for good service.

This spirit of service is found in the recent rearrangement of the telephone business to conform with present public policy, without recourse to courts.

The Bell System has grown to be one of the largest corporations in the country, in response to the telephone needs of the public, and must keep up with increasing demands.

However large it may become, this corporation will always be responsive to the needs of the people, because it is animated by the spirit of service. It has shown that men and women, co-operating for a great purpose, may be as good citizens collectively as individually.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

630

GENERAL LIBRARY
APR 1914

BELL TELEPHONE NEWS



Vol. 3

April, 1914

No. 9

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

MARCH 1, 1914

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	512,985	254,711	767,696
INDIANA	88,024	181,935	269,959
OHIO	174,875	195,306	370,181
MICHIGAN	202,391	59,989	262,380
WISCONSIN	<u>140,789</u>	<u>115,204</u>	<u>255,993</u>
	1,119,064	807,145	1,926,209

BELL • TELEPHONE • NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., APRIL, 1914

Number 9

Important Changes in Central Group Organization at Chicago General Headquarters.

H. F. Hill Becomes Vice President, in Charge of Operating, and W. R. Abbott Succeeds Mr. Hill as General Manager of Chicago Company

At a luncheon given March 28th by President B. E. Sunny, announcement was made of general changes in the official personnel of the Central Group organization. The changes follow the retirement of Charles E. Mosley from the office of treasurer of the several companies and the resumption of the title of treasurer by Vice President Alonzo Burt. Mr. Burt resumes the position of vice president and treasurer, which he held prior to the reorganization of 1912, and Horace F. Hill has been elected vice president, succeeding Mr. Burt as head of the operating organization of each company.

W. Rufus Abbott has been appointed general manager of the Chicago Telephone Company succeeding Mr. Hill. Mr. Abbott's former position of general commercial superintendent is filled by the promotion of Alfred R. Bone, who for the past two years has been commercial superintendent of the Chicago City Division. Walter G. Luscombe, former contract manager and a veteran in the commercial department, succeeds Mr. Bone as commercial superintendent.

Another important appointment is that of A. B. Crunden to the position of auditor of disbursements of the Chicago, Wisconsin, Michigan State and Cleveland Telephone Companies. Mr. Crunden succeeds John Uprichard, who resigned to become general auditor of the Central Union Telephone Company. Mr. Crunden was formerly assistant auditor of disbursements.

The changes became effective April 1.

Mr. Mosley retires from the service under the age-limit rule adopted by the Bell Telephone System a little over a year ago. At the luncheon given by Mr. Sunny, the general officers with whom Mr. Mosley has been associated presented him with a handsome watch and chain as a mark of their personal esteem and appreciation.

HORACE F. HILL.

Horace F. Hill, the newly elected operating vice president

for the Central Group of Bell Telephone Companies, was born in Boston, Mass., in 1860. He was educated in the public schools and entered the Postal (not "Postalized") Service in 1877. During his fifteen years' service Mr. Hill rose to the rank of chief clerk of Boston Post Office and, realizing that further advancement would be impossible unless he took an active part in

politics, he resigned from the government service.

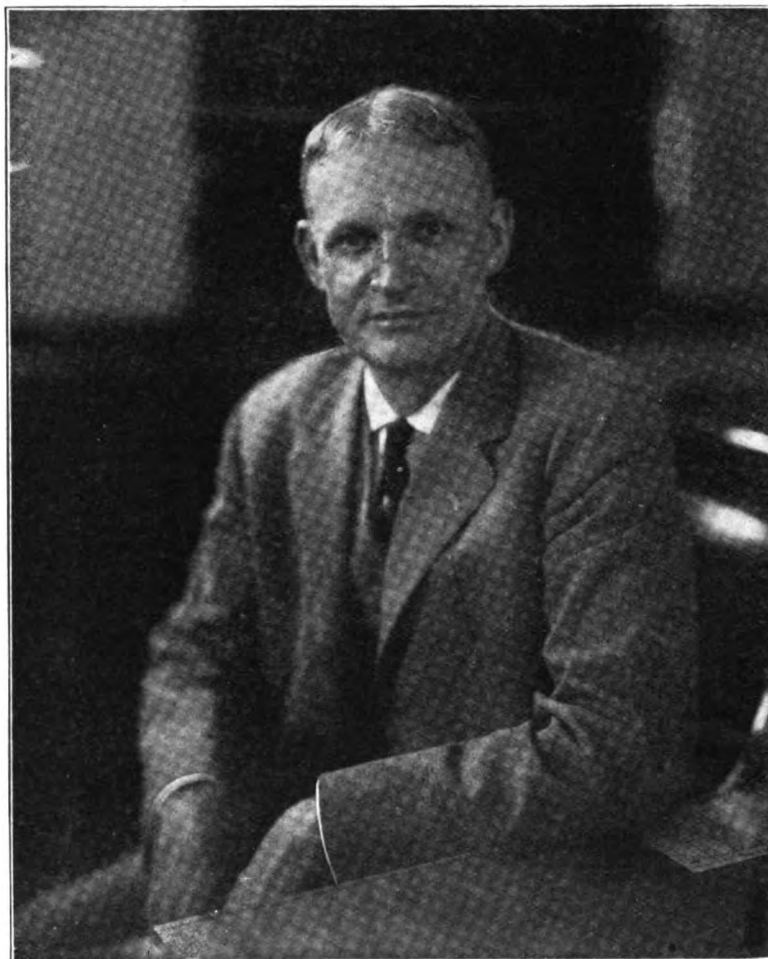
In 1892 Mr. Hill took employment with the American Telephone and Telegraph Company, in New York. In 1896 he was appointed assistant general superintendent of the Long Lines Department of the American Telephone and Telegraph Company and was prominent in the development of what is now the long-distance service of the Bell System.

In 1903 Mr. Hill was made general manager of the Central Union Telephone Company, with headquarters in Chicago. The headquarters were later moved from Chicago to Indianapolis, and in 1907 Mr. Hill was elected vice president of the Central Union Company, retaining also the title and duties of general manager.

Indiana, Ohio and Illinois, the three states in which the Central Union operated, comprised the territory in which telephone competition waged its bitterest fight against the Bell System. People unfamiliar with the financial requirements of successful telephone operation and misled through over sanguine representations of construction companies and apparatus manufacturers had rushed madly into the new business, rates had been ruthlessly cut, expensive plants had been installed, high dividends were being declared, depreciation

was being overlooked and a telephone saturnalia followed, with the inevitable result of wreck and financial paralysis for hundreds of ill-conceived telephone enterprises.

Through all this stressful period, environed in a strange community, loaded with the heavy responsibilities inwrought with the great interests under his direction, Mr. Hill battled cour-



HORACE F. HILL.

Vice President of the Central Group of Bell Telephone Companies.

ageously for the life of his company. In the Hoosier capital he set about the making of friends and it can be truly said of him that he won them by the score. And this is not all—he won the respect and admiration of his business competitors by his upstanding, but always fair, fight.

In 1911 the organization of the Bell System was rearranged and in the process the Central Group of Bell Telephone Companies was formed. In this group were the Chicago Telephone Company, the Wisconsin, Michigan State, Central Union and the Cleveland telephone companies. Headquarters of the group were established in Chicago and Mr. Hill was appointed general manager in charge of plant, traffic and engineering work.

In 1912 a rearrangement of the group organization was effected, and Mr. Hill became general manager of the Chicago Telephone Company and the Illinois Division of the Central Union Telephone Company, in which capacity he served until April 1st, 1914, when he was elected vice president in charge of operation of the Central Group companies.

Coming after twenty years' faithful and efficient service for the Bell System, Mr. Hill's advancement is a graceful recognition of his merit which will be viewed with keen appreciation by all who know him and it is in line with the policy of the Bell System of reward for duty well performed.

WILLIAM RUFUS ABBOTT.

William Rufus Abbott, who succeeds H. F. Hill as general manager of the Chicago Telephone Company, was born September 18th, 18—“just a minute, please. Changing reels”—in one of our Island possessions known as New York, lying just east of Weehawken as the crow flies. Mr. Abbott was educated at a little red school house in Harlem.

About the time Mr. Abbott left school the Erie Railroad discovered New York on the map and decided to open an office there, whereupon Mr. Abbott was selected for the position of clerk in the auditor's office, which position he filled from 1885 to 1889. During the latter year the moving spirits of the Bell Telephone System, theretofore almost exclusively Bostonese, became convinced that New York had a future and decided to extend their lines to the growing city. Preliminaries having been satisfactorily arranged with the city, negotiations were entered into with Mr. Abbott which resulted in his becoming cashier of the Westchester Telephone Company in February, 1889. He served in this capacity until April, 1890, and was then made order clerk of the Metropolitan Telephone and Telegraph Company. Both the Westchester and Metropolitan have

since been absorbed by the New York Telephone Company.

Tiring of the quiet of New York Mr. Abbott came west in 1893 and located in Chicago, identifying himself with the Chicago Telephone Company. He has filled successively and successfully the positions of order clerk; chief clerk to general superintendent; special agent in charge of rights of way and claims; superintendent, Suburban Division; and general commercial superintendent. Always a slave to duty he finds time nevertheless for recreation, which accounts for his being a Republican, a Presbyterian, a Mason, Knight Templar and Noble of the Mystic



W. RUFUS ABBOTT.

Shrine. Next to playing golf (and he has been known to go round in 182) Mr. Abbott's favorite pastime is joining. He has held the offices of director, vice president and president of the Chicago Athletic Club; director, vice president and president of the Edgewater Country Club; secretary of the Industrial Club; director and secretary of the First State Industrial Wage Loan Society; committeeman on the Sub. Div. No. 62 City Transportation and Public Utilities Membership and Executive Committees of the Chicago Association of Commerce; treasurer Delavan Lake Golf Club; commodore, Delavan Lake Yacht Club; just plain member, Chicago Club, Chicago Electric Club, Chicago Motor Club, Aero Club of Illinois; Chicago Art Institute.

Mr. Abbott married Miss Mabel Rosalie

Harland of Chicago in June, 1892. Two children, Hester and William Rufus Jr., complete the charming family. Mr. Abbott's home is at the Hollywood Annex, Edgewater.

ALFRED R. BONE.

Alfred R. Bone, who became general commercial superintendent of the Chicago Telephone Company April 1st, has been with that company for sixteen years. Prior to his Chicago connection he had a telephone experience which is unique in the history of the rise of Bell telephone men.

Mr. Bone was born in Shelbyville, Ind.,

June 25, 1871. A few years later his father, A. P. Bone, established a telephone exchange in Greensburg, Ind., a short distance from Shelbyville. This exchange was operated under direct license from the American Bell Telephone Company. Beginning in 1887, the subject of this sketch, during vacation periods while in school and college, performed duties as night operator, groundman, lineman, repairman, collector and solicitor. Upon leaving college he entered the service of his father regularly, and for several years assisted in the construction and operation of Bell lines and exchanges in Decatur, Jennings and Ripley counties, Ind. Experts and telephone engineers were scarce in those early days in the rural inland sections and it was only the fact that the necessity of keeping the system in operation knew no law to the contrary that made it possible for the father and son to engineer, finance, construct and operate the system.

About sixteen years ago Mr. Bone entered the service of the Chicago Telephone Company first as a solicitor, next as manager of the Aurora District, then as special agent in the Suburban Division and later as special agent in charge of collections and special matters in the city of Chicago. He became commercial superintendent

September 1, 1912, and general commercial superintendent, succeeding W. Rufus Abbott, April 1, 1914.

In addition to the interest Mr. Bone naturally takes in the success of the Chicago Telephone Company he is also a prominent worker in the Electric Club of Chicago and is at the present time president of that organization. Mr. Bone also has considerable dramatic talent and his able portrayal of the role of the skeptical Boston capitalist in the entertainment "Telephony," given last October during the meeting of the Telephone Pioneers of America, will not soon be forgotten by those who had the privilege of witnessing that memorable performance.

WALTER G. LUSCOMBE.

Walter G. Luscombe, recently appoint-



ALFRED R. BONE.

ed commercial superintendent for the City Division of the Chicago Telephone Company, has been in the service of that company almost as long as any man in its employ.

Mr. Luscombe, as a lad, was one of the famous "boy telephone operators," celebrated in song and story. In October, 1880, he was employed as an operator at the old South exchange in Chicago, now Calumet, and his connection with the Chicago Telephone Company has been continuous since that time. Mr. Luscombe, however, did not continue long at the switchboard, for in 1882 we find him occupying the position of night manager at the South office, and in 1884 that of manager of the American District Telegraph office at State and Randolph. This company furnished a messenger service in connection with the telephone service of the Chicago Company. It was Mr. Luscombe's business to curb the volatile spirits of a large corps of juvenile Mercurys and direct their energies into the service of those patrons of the company who might request them over the telephone wires. It may be said for Mr. Luscombe that he daily performed this difficult task of supervision as well as anyone might possibly be expected to do it.

After three years of this strenuous work Mr. Luscombe entered the office of the Chicago Telephone Company, and served first as collector, then as contract clerk in the secretary's office, then as directory clerk in the contract department, and in 1901 as chief clerk in the contract department. This position he held until 1913, when he was appointed contract manager in the commercial department. The elevation of Mr. Bone to the position of general commercial superintendent furnished the opportunity to promote Mr. Luscombe to the important position of commercial superintendent of the City Division, which he assumed April 1st.

CHARLES E. MOSLEY.

Charles E. Mosley, former treasurer of the Central Group of Bell Telephone Companies, having reached the retirement period, tendered his resignation, effective March 31st.

Mr. Mosley has been actively engaged in the telephone business since 1889. He entered upon his duties April 1st of that year and has, therefore, exactly twenty-five years of service to his credit.

He was manager of the first long-distance line in the West, which extended from Chicago to Milwaukee. Later he became district superintendent, under E. J. Hall, of what was then known as the Western District, and was engaged in locating routes through Ohio and arranging for the entrance of long-distance lines into various cities, including Cleveland, Toledo and Youngstown.

Mr. Mosley was elected secretary and treasurer of the Chicago Telephone Company April 1, 1893. At that time the duties of the secretary included those now performed by the auditor; the office of auditor was created in 1895.

In 1893 the Chicago Telephone Company operated less than 12,000 telephones in the territory now embraced in the city and suburban service. In the corresponding territory, on February 1, 1914, the company had in service 442,998 stations, a growth of over 430,000 stations in twenty-one years.

Commencing with Henry B. Stone, in 1893, and ending with B. E. Sunny, Mr.



CHARLES E. MOSLEY.

is a comparative newcomer in the telephone service but has had a long experience in accounting in other lines.

Mr. Crunden was born in London, England, April 2, 1878. In 1892, at the age of fourteen he entered the foreign banking department of Henry Gage and Sons, as a clerk. Gage and Sons were railroad and steamship agents doing a large business. During two years, therefore Mr. Crunden had an accounting experience in which the units of value were pounds, shillings and pence as well as dollars, cents, francs, pesos, rupees and yen.

In 1895 Mr. Crunden was transferred to New York by his employers and for the next four years held various accounting and clerical positions. In 1899 he was sent out to Chicago as manager of the Chicago branch and held this position until 1904. During the period of his connection with this firm of steamship agents, Mr. Crunden crossed the Atlantic Ocean eleven times.

In 1904 (through no fault of Mr. Crunden's) Henry Gage and Sons withdrew from business in the United States. Mr. Crunden then connected himself with the Trans-Continental Passenger Asso-



WALTER G. LUSCOMBE.

Mosley has served under six men who have held the office of president of the Chicago Telephone Company. Of the numerous directors who have assisted in the direction of the company's business. Hon. Robert T. Lincoln is the only one who has served continuously during Mr. Mosley's term of service from 1893 to 1914.

When Mr. Mosley retired from the treasurership he also resigned from the directorate of the Central Union Telephone Company, the general committee of the Employees' Benefit Fund and the directorates of several of the smaller companies in which the Associated Bell Companies are interested.

Mr. Mosley's ability has been his one road to success. His affability and courtesy, which mark him as a gentleman of the old school, have won for him a host of friends both in and out of the telephone service, all of whom will rejoice with him in the rounding out of an honorable career, and the well earned rest that brings a surcease from the burdens and cares of official life.

ALLAN B. CRUNDEN.

Allan Bernard Crunden, newly appointed auditor of disbursements of the Central Group of Bell Telephone Companies



ALLAN B. CRUNDEN.

ciation as chief clerk and accountant. He continued in this position until January 1, 1910, when he entered the service of the Chicago Telephone Company as general bookkeeper in the auditing department. In May, 1911, he became general bookkeeper for the Central Group and in April, 1913, assistant auditor of disbursements for the Central Group. In March, 1914, he became auditor of disbursements, succeeding John Uprichard.

Organization Changes in Cleveland

At a meeting of the directors of the Cleveland Telephone Company, held in Cleveland March 5th, E. A. Reed, who has been general manager of The Cleveland Telephone Company and the Ohio Division of the Central Union Telephone Company since 1912 resigned from the Cleveland Company in order to give his entire time to the Central Union Company. Peter Yensen was elected third vice president of The Cleveland Telephone Company.

The following appointments were announced, effective March 6th:

Allard Smith, general manager.

T. P. Cagwin, commercial superintendent.

Norman Anderson, traffic superintendent.

A. N. Symes, engineer.

H. S. Berlin, plant superintendent.

The position of commercial manager was abolished.

PETER YENSEN.

Peter Yensen, third vice president of The Cleveland Telephone Company, is one of the veterans in the telephone service in the West.

Mr. Yensen entered the service of the Bell Company in Wellington, Kan., January 1, 1884, as manager of the Wellington exchange and lineman and repairman covering Wellington, Winfield and Arkansas City and toll lines between Winfield and Arkansas City and between Wellington and Coldwell. Here was real experience, covering about everything that you could think of in the conduct of the telephone business as it was in those days. However, Mr. Yensen secured a



ALLARD SMITH.

promotion in June of the same year in the shape of a transfer to the service of the Northwestern Telephone Exchange Company at Grand Forks, N. D. His tenure at this point was short. In October, 1884, he went to Fargo as manager for the Northwestern company. Here he remained until May 1, 1886, when he was again moved up, this time to the position of manager of the important exchange at St. Paul, Minn.

Mr. Yensen continued in charge of the St. Paul office until May, 1888, when he was transferred to Cleveland, Ohio, where he has ever since been located. His first position at Cleveland was manager. From this he was promoted in 1893 to superintendent and in 1899 to general manager. For twelve years, until 1911 he continued as general manager. In 1911, when the unit organization of the five companies was formed, Mr. Yensen was appointed commercial superintendent of The Cleveland Telephone Company and district commercial manager for the Akron District of the Central Union Telephone Company, and continued in these positions until March 1st of this year.

ALLARD SMITH.

At a meeting of the Board of Directors of the Cleveland Telephone Company, held March 5, 1914, Allard Smith was elected general manager and director of the company, succeeding E. A. Reed. Mr. Reed will now devote his entire time to the Central Union Telephone Company.

Mr. Smith was born in Eau Claire, Wis.,—when, deponent saith not,—a busy, bustling little city situated at the confluence of the Eau Claire and Chippewa Rivers. Besides being the spot halloved as the birthplace of Allard Smith, Eau Claire has eighteen sawmills and three railroads, and is wholly surrounded by country, in which farming and dairying are the principal outdoor sports.

After which fitting tribute to Eau Claire attention is once more directed to the subject of this sketch.

Mr. Smith, passing successfully through the vicissitudes of childhood and boyhood, entered the University of Wisconsin and, taking the Electrical Engineering course, graduated in 1898. Armed with his sheepskin, he turned his face S. S. by E. and arrived in Chicago. His first employment was a payless one in the draft-

ing department of the Chicago Telephone Company. Spineless cactus, fireless cookers and stingless bees are things to conjure with, but a payless job usually creates an entire lack of enthusiasm and we are therefore safe in assuming that Mr. Smith left the drafting department without protest when, in the fall of 1898, he was made switchboard installer.

From that time to the present his promotion has been rapid and he has creditably filled the positions of underground construction inspector, engineer of central office specifications, chief clerk for the general superintendent, division superintendent of construction, and engineer of outside plant.

During his tour as division superintendent of construction, Mr. Smith built the telephone subway from Chicago to Racine, Wis., a distance of forty-five miles. This subway line was extended to Milwaukee, forty miles, by the American Telephone and Telegraph Company. This underground subway and cable installed from Chicago to Milwaukee, eighty-five miles, was then, in 1905, the longest continuous underground connection in the United States. The invention of the "Pupin" loading coils connected to the underground cables on this long installation marked an important step in long-distance telephone transmission in underground cables.

The Bell engineers continued their experiments in this field and the crowning success of their efforts is the Boston-Washington telephone subway just opened, furnishing through underground telephone connection between Boston, Mass., and Washington, D. C. This line was financed, engineered and built by the American Telephone and Telegraph Company.

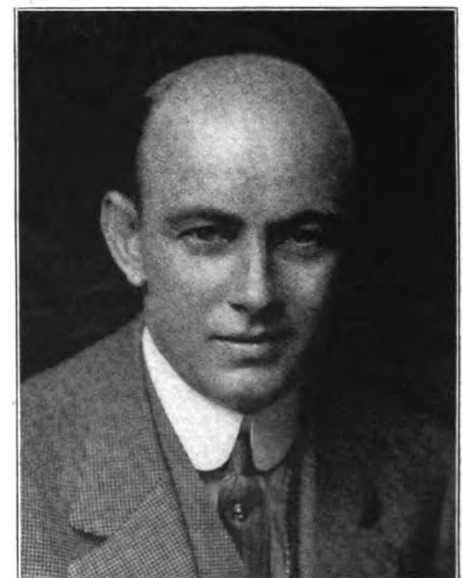
During 1911 and part of 1912 Mr. Smith was outside plant engineer for the Central Group of Bell Telephone Companies, his duties having to do with properties of the Bell System in Ohio, Indiana, Illinois, Michigan and Wisconsin.

In 1912 he was appointed chief engineer for The Cleveland Company and the Ohio Division of the Central Union, which position he held at the time of his promotion to the office of general manager of The Cleveland Telephone Company.

Mr. Smith, in addition to being a thoroughly capable engineer, is one of the most popular officials of the Central



PETER YENSEN.



THOMAS P. CAGWIN.

Group and his advancement is a source of gratification to his friends throughout the service.

THOMAS P. CAGWIN.

Thomas P. Cagwin, recently appointed commercial superintendent of The Cleveland Telephone Company, is a native of Illinois, having been born in the city of Joliet, November 8, 1875. His education was completed at St. John's Military Academy, from which he graduated in 1896. His family had in the meantime moved to Milwaukee, Wis., and it was in Milwaukee, when a youth of twenty-three, that Mr. Cagwin entered the telephone service. His first employment was with Chief Inspector T. P. Creed, of the Wisconsin Telephone Company. This was in 1899. The following year he was made chief clerk to Manager Holmes and held this position under Mr. Holmes's successor, J. J. Reilly. In 1902 Mr. Cagwin moved to Cleveland and entered the employ of The Cleveland Telephone Company. For two years he was in the traffic department, as special agent to E. E. Ranney, traffic superintendent. Then he was transferred to the general manager's office as special agent. He soon took up commercial work and was appointed manager of contracts and collections and later commercial manager. On March 1st of this year he became commercial superintendent, succeeding P. Yensen, who was elected third vice president.

Mr. Cagwin has become very prominent in civic affairs of the "Sixth City" during the time of his residence there. He is an enthusiastic motorist and has served as president of the Cleveland Automobile Club. He is also a past president of the Electrical League of Cleveland. He is at present a member of the exhibit committee of the Cleveland Electrical Exposition, which is to be held in the Coliseum May 20 to 30th.

Mr. Cagwin was married in 1900 to Miss Lillian Ferguson of Milwaukee.

Neat Lines Appreciated

That well constructed telephone lines may actually be an improvement instead of a detriment to contiguous property is shown by the following letter received by the manager of the Central Union Telephone Company at New Castle, Ind.:

Newcastle, Ind., March 6th, 1914.
L. L. Monticue, Mgr.
C. U. T. Co.
Dear Sir:—We, the Patrons of The Bell Telephone System, wish to thank you and the faithful Operators, for the excellent service we have enjoyed the past three months.

The high grade of poles, wire and workmanship, has increased the valuation of our property, for which we will return the favor in any way we can. We are at your service. Respectfully,

PATRONS, OAK-GROVE ADDITION.
Per P. Franklin.

Among Neighbors

"I see the telephones of Canada number 370,884, one for every twenty persons," said the lady from next door, calling.

"Oh, is that all, one for every twenty?" replied the other. "I'm sure that more than twenty neighbors use ours."—*Yonkers Statesman*.

Such Is Fame

Mr. Hanin, a French architect, states in a newspaper communication that "the telephone was invented by two Americans, Graham and Bell, and the phonograph by an American, named Edison.

Changes in Central Union Organization

As a result of the appointment of receivers for the Central Union Telephone Company, a few changes have been made in the organization of that company.

On January 31st, Judge W. E. Dever, of the Superior Court of Cook County, Ill., appointed as receivers for the company David R. Forgan, Frank F. Fowle and Edgar S. Bloom. These appointments were confirmed by the Superior Court of Marion County, Ind., and the Common Pleas Court of Franklin County, Ohio, the Indiana Court adding John A. Moriarty to the list of receivers for that state.

Ordinarily a receivership is the result of serious financial embarrassments, but that is not the case with the Central Union Company. The Company is not insolvent; the placing of its property in the hands of receivers who direct its oper-



DAVID R. FORGAN.

ation under orders of the Court, is designed to keep the property intact during the progress of a suit by minority stockholders for an accounting and an investigation into the relations of the Central Union Telephone Company and the American Telephone and Telegraph Company, which these minority stockholders claim have not been to the advantage of the Central Union Company.

During the receivership the court has ordered a severance of the joint relationship heretofore existing between the Central Union Telephone Company and the other companies of the Central Group. In creating a separate organization in accordance with this order, the receivers have retained the great body of employees. The organization is now practically complete and the following appointments are announced:

C. L. McNaughton, treasurer, Chicago. Mr. McNaughton has resigned as assistant treasurer of the Chicago, Wisconsin, Michigan State and Cleveland Telephone Companies.

John Uprichard, general auditor, Chicago. Mr. Uprichard has resigned as auditor of disbursements of the Chicago, Wisconsin, Michigan State and Cleveland Telephone Companies.

E. A. Reed, general manager, Columbus, Ohio. Mr. Reed has resigned as general manager of The Cleveland Telephone Company.

J. W. Stickney, general manager, Indianapolis, Ind.

C. H. Rottger, general manager, Springfield, Ill.

M. C. Setter, supply agent, Chicago.

A. J. Parsons, chief clerk to the receivers, Chicago.

Thomas R. Keyes, auditor of disbursements, Chicago.

William Donaldson, auditor of receipts, Chicago.

W. S. Crater, commercial superintendent, Columbus, Ohio.

C. M. Nesbitt, commercial superintendent, Indianapolis, Ind.

Realizing the natural interest felt by Central Union Telephone Company employees especially and readers of the BELL TELEPHONE NEWS generally, in the receivers of the Central Union and their principal administrative assistants, we are appending brief biographical sketches with portraits accompanying.

DAVID R. FORGAN.

David Robertson Forgan, president of The National City Bank of Chicago, is one of Chicago's leaders in the realm of finance. He occupies a prominent place in the business world at large and is known among his associates not only for his business sagacity but also for his fair-mindedness and business integrity. He is a born banker and has devoted his life to the profession in which he has achieved such marked success.

St. Andrews, Scotland, was the birthplace and boyhood home of Mr. Forgan. His education was that which the common schools then afforded. At the age of fifteen he entered the Clydesdale Bank as a messenger boy.

Three years later he emigrated to Halifax, Nova Scotia, where he secured a position in the Bank of Nova Scotia. For five years he was manager of the branch bank at Fredericton, New Brunswick.

Coming to the United States in 1888 at the age of twenty-seven he entered banking circles in Duluth, Minn., as assistant cashier of the American Exchange Bank. After two years he became cashier of the Northwestern National Bank of Minneapolis, Minn.

Mr. Forgan came to Chicago in 1896 to accept the vice presidency and later the presidency of the Union National Bank which was later merged into the First National Bank of Chicago and of which his brother, James B. Forgan, is president. He was vice president of the First National Bank and First Trust and Savings Bank from 1900 until the organization of the National City Bank of Chicago.

"But I don't know very much about the telephone business," Mr. Forgan told the reporter from the BELL TELEPHONE NEWS. His words were spoken with a quaint but charming Scotch accent. "I do know that I have two telephones here but I hope they will soon be one," he added as he reached forward and placed his hand on the Bell telephone which stood close by on his mahogany desk.

Mr. Forgan has gained wide recognition for his writings on banking subjects, especially for his review of W. H. Harvey's "Coin's Financial School" in 1894. Another of his well known works is "Banking as a Profession." In 1903 the honorary degree of Master of Arts was bestowed on him by Illinois College, Jacksonville, Ill.

Before coming to the United States Mr. Forgan was married to Miss Agnes Kerr of Winnipeg, Manitoba, in 1883. They have three sons and two daughters.

Mr. Forgan is a member of the Chicago, Bankers', Commercial, Mid-Day, Onwentsia and Evanston Country Clubs.

FRANK F. FOWLE.

Frank Fuller Fowle, former joint editor of the *Electrical World* and prominent among American telephone engineers, was born in San Francisco, raised in Hancock, New Hampshire and educated for his profession in the Massachusetts Institute of Technology. He was graduated from the Boston school in 1899, after which he entered the engineering depart-



FRANK F. FOWLE.

ment of the American Telephone and Telegraph Company in New York City.

Mr. Fowle gained his first practical experience in the field of telephone engineering under F. A. Pickernell, then chief engineer of long-distance lines. During the latter two of his four years in the engineering department, Mr. Fowle was associated with George M. Yorke, now general plant superintendent of the Western Union Telegraph Company. Mr. Fowle was among those who aided in developing the use of the Pupin coil by the American Telephone and Telegraph Company. His duties also involved the preparation of specifications and plans for new long-distance offices and he traveled considerably over the Bell System.

In 1904 he was promoted to the railway department of the A. T. and T. Co. under Wendell Baker, as a special agent. For nearly three years he served in this capacity, assisting in the negotiation of contracts between companies of the Bell System and steam railways for telephone service. In this connection he had a part in encouraging railroads to build private lines and to make special applications of telephone service for operating and dispatching trains.

In the long-distance operating department, Mr. Fowle came to Chicago in 1906 as manager of the Chicago operating territory under W. E. Bell, then district superintendent of the Fifth District. Under the old territorial form of organization he had charge of the plant, traffic and commercial departments excepting the soliciting of contracts. The Chicago operating territory included nearly all of Illinois, parts of Indiana and Wisconsin and about half of Michigan with about 2,000 miles of pole lines. The growth of business during his two years in the ter-

ritory was approximately fourteen per cent. annually.

During the Chicago telegraph operators' strike of 1907 Mr. Fowle was personally in charge of the Morrell Park long-distance office which handled a tremendous rush of business until the trouble was ended.

In 1908 Mr. Fowle severed his connection with the American Telephone and Telegraph Company and opened an office in Chicago as a consulting electrical engineer. In that capacity he served the A. T. and T. Co. as an expert in the case against the Lincoln (Ill.) Traction Company charged with the erection of a 33,000 volt power-transmission line parallel to and directly over a telephone line, in a highly hazardous manner. The decision was favorable to the telephone company and is now frequently cited as precedent in similar litigation.

Beside conducting some research in experimental work Mr. Fowle has been secured as an expert in several public utilities' rate cases, prominent among which was that of the City of Beloit, Wis., against the Beloit Water, Gas and Electric Company in 1909-10. He acted as expert for the city. Frequently his services have been sought in connection with telephone and telegraph engineering enterprises.

With the retirement of W. D. Weaver, editor of the *Electrical World*, in 1912, Mr. Fowle and Dr. A. S. McAllister, former assistant professor of electrical engineering at Cornell University, became joint editors of that well known publication. In conjunction with his editorial work he maintained an office in New York and continued to act as consulting engineer. His duties as joint editor of the *Electrical World* terminated April 1st and he is now devoting all of his time as one of the receivers for the Central Union Telephone Company, appointed by courts of Illinois, Indiana and Ohio upon agreement between counsel for the telephone company and the minority stockholders.

Mr. Fowle was married to Miss Edna Cowper of Buffalo, N. Y., in 1905. Their two sons, Frank F. Jr. and William C., were born in Chicago. At present their home is in Bayside, Long Island, but they will soon return to Chicago.

Among the prominent organizations of which Mr. Fowle is a member are the American Institute of Electrical Engineers, National Electric Light Association, the Illuminating Engineering Society, the Engineers' Club of New York, the Technology Club of New York and the Electric Club of Chicago. He is also a member of the Bayside Yacht Club and a non-resident member of the University Club of Chicago.

EDGAR S. BLOOM.

Edgar Selden Bloom is known among the men of the Bell System from coast to coast. During his seventeen years of service in the telephone business he has been an active factor in the development of the One Policy, One System and Universal Service methods. Before chosen as receiver of the Central Union Telephone Company he was second vice president of the Southwestern Bell Telephone System in charge of operations, with headquarters in St. Louis, Mo.

Mr. Bloom is a native of Bloomsbury, N. J. On the year when he cast his first vote he was graduated from the University of Pennsylvania with the degree of Bachelor of Science. In 1896 he completed a year of post-graduate study which brought him the degree of Mechanical Engineer. He is a member of Delta Upsilon, a well known college fraternity.

The telephone business claimed him at once. He began as a traffic inspector with the New York Telephone Company. During his first year he was promoted to the position of assistant central office manager and also assistant traffic engineer.

In 1897 he entered the plant department of the New York Telephone Company as foreman of the cable and construction gangs. The following year found him attending to the duties of the construction engineer for New York City in which capacity he served for eight years.

Under Mr. Bloom's leadership the interior block system of distribution throughout Manhattan Island was developed. Among the telephone improvements which he assisted in designing and putting into practical use were the house cable systems for large office buildings.

From the New York Telephone Company Mr. Bloom went to the Long Island division of the New York and New Jersey Telephone Company as plant superintendent with headquarters in Brooklyn. He remained there for slightly more than a year, going next to the position of plant superintendent of Northern New Jersey for the same company.

In 1909 Mr. Bloom made two transcontinental jumps. From New Jersey he went to San Francisco as general plant superintendent for the Pacific Telephone and Telegraph Company operating along the Pacific coast. In December he returned to New York to become plant superintendent for all of New York state except New York City.

Up to this time he had been associated with such men as E. F. Sherwood, now



EDGAR S. BLOOM.

chief engineer of the Eastern Group of Bell Telephone Companies, J. A. Stewart, general manager of the New York Telephone Company and H. F. Thurber, vice president of the Eastern Group of Bell Companies.

Mr. Bloom was given general supervision of plant operations in the United States for the American Telephone and Telegraph Company in 1910. As engineer of plant operations he served the parent company until March, 1912, when he became second vice president of the Southwestern Bell Telephone System.

Included in the Southwestern System are the Southwestern Telephone and Telegraph Companies of Missouri and New York, the Pioneer Telephone and Tele-



JOHN A. MORIARTY.

graph Company and the Missouri and Kansas Telephone Company. They operate in Missouri, Kansas, Arkansas, Oklahoma, Texas and part of Illinois.

While serving the A. T. and T. Co. Mr. Bloom was associated with J. J. Carty, chief engineer, and H. B. Thayer, vice president of the Bell System.

His work in the telephone field has been largely that of organization. During the past five years he has given much time and attention to the question of the regulation of public utilities. Because of his wide knowledge of the business his advice is frequently sought in connection with telephone cases before public service commissions in both the United States and Canada.

Mr. Bloom's home is now in St. Louis. He was married in 1905 to Miss May G. Wallace of New York City. They have one daughter, Eleanor. Mr. Bloom is a member of the Noonday Club, the Algonquin Golf Club, and the University Club, all of St. Louis.

JOHN A. MORIARTY.

John A. Moriarty, one of the receivers of the Central Union Telephone Company for Indiana, is a native born "Hoosier," forty years old. He began his business career at the age of eighteen in the railroad work but switched to the commercial end of the telephone business fourteen years ago when the New Telephone Company (the independent company) began operating in Indianapolis. For the most of the time since then he has been with the New Company and its successor, the Indianapolis Telephone Company. For the last five years, up to February 1, 1914, he was manager of the Indianapolis office. Upon his appointment as receiver for the Central Union Company in Indiana he resigned from the Indianapolis Company.

Mr. Moriarty is prominent in the social and club life of Indianapolis. He enjoys the unique distinction of having been elected without opposition to the presidency of the Marion Club, a leading Republican organization with a large membership. The offices and directorships in this club are usually the objects of spirited contests, but no one appeared to contest the honor with Mr. Moriarty when his name appeared on the regular ticket.

JOHN UPRICHARD.

John Uprichard, general auditor of the Central Union Telephone Company, is a native of the "Emerald Isle." He was born June 11, 1872, in the town of Enniscorthy, County Wexford, and spent his early youth in the north of Ireland.

Mr. Uprichard arrived in America in May, 1890, going to Victoria, the capital city of the Province of British Columbia, Can., where he remained until the spring of 1895.

In 1895 he entered the telephone business in San Francisco, Cal., being employed in the auditing department of the Pacific Telephone Company, and the Sunset Telephone and Telegraph Company, and in the year 1900 was assigned to special duties in the president's office, which position he held until 1902, when he was appointed acting auditor of the Central Union Telephone Company, with headquarters at Chicago. He served in this capacity until May, 1903, when he was appointed assistant auditor, and was elected auditor of the Central Union Telephone Company in January, 1905, and of the Cleveland Telephone Company in 1906. He was also elected second vice



JOHN UPRICHARD.

president of the Central Union Telephone Company in May, 1909.

Mr. Uprichard was elected a director of the Central Union Telephone Company in January, 1905.

On May 1, 1911, at the time of the formation of the joint organization in Chicago, he was appointed auditor of disbursements of the five companies of the Central Group, a position which he held until March 1st last when he assumed his present duties.

CLARENCE L. McNAUGHTON.

Clarence L. McNaughton, treasurer of the Central Union Telephone Company, was born in Hamilton, Ont., November 2, 1867. Most of his life, however, has been spent in the United States and a large part of it in Chicago.

At the age of nineteen Mr. McNaughton entered the service of the Central Union Telephone Company as a bill maker. This was in 1886. The general offices were then located in the Pullman Building and all exchange service bills were prepared in Chicago. The company at that time had a total of about 9,000 sta-

tions in Illinois, Iowa and Ohio. It had practically discontinued the furnishing of exchange service in Indiana on account of a rate law passed by the legislature of that state in 1885. In those days the auditing department was a part of the secretary and treasurer's organization and the entire force, including the secretary and treasurer, numbered about fourteen.

In December 1886 Mr. McNaughton was promoted to the position of assistant bookkeeper and in 1889 became contract clerk. In 1890 he was transferred to the office of the secretary and treasurer where later he became chief clerk and about 1898 cashier. He continued in the treasury department, during the eight year period in which the headquarters were located in Indianapolis, in 1907 being advanced to the position of assistant treasurer. In 1911 he became assistant treasurer of the Central Group of Bell Telephone Companies, at the same time continuing as assistant treasurer of the Central Union. On February 1st he was appointed treasurer of the Central Union Telephone Company, succeeding C. E. Mosley.

Mr. McNaughton is one of the leading golf enthusiasts of the telephone organization and may be found on the Evanston links almost any holiday in summer and sometimes when the turf is frozen.

EUGENE A. REED.

Eugene A. Reed, general manager for the Central Union Telephone Company in Ohio, has been in the telephone service just twenty years this year.

Mr. Reed was born February 9, 1871, in Roxbury, a part of the city of Boston, Mass. When he was two years old his parents moved to Newton and three years later to Allston, a suburb of Boston, within sight of the Memorial Hall of Harvard University. Mr. Reed graduated from the Allston Grammar School in 1883; five years later from the Boston Latin School and in 1892 from Harvard University. After graduation from the academic department he entered the Harvard Law School and continued there until the spring of 1894 when he entered the employ of the American Telephone and Telegraph Company as chief operator of the long-distance station at Boston.

In school and in college Mr. Reed had achieved some distinction as a public



CLARENCE L. McNAUGHTON.



EUGENE A. REED.

speaker and on the completion of his college course had taken an active part in the politics of his ward. In 1892 and 1893 he had been a member of the republican committee and had served two years from 1893 to 1895 in the Boston City Council. But soon after entering the telephone service he found that he did not have the time to devote to politics and his political career terminated at this point.

During his employment in Boston Mr. Reed was successively advanced to the positions of chief clerk to the district superintendent and assistant district superintendent of the Boston District. In 1899 he was transferred to New York where he held the positions of assistant district superintendent and special agent in operating to the general superintendent of the American Telephone and Telegraph Company.

In 1903 Mr. Reed was invited to come west and accept the position of division superintendent for Ohio for the Central Union Telephone Company. He accepted and established his headquarters at Columbus. He remained in charge of Ohio affairs for the Central Union until 1911 when he became general plant superintendent for the five companies which had established joint headquarters at Chicago. In 1912 he returned to Columbus as general manager for the Central Union Telephone Company in Ohio and The Cleveland Telephone Company. He resigned the latter connection March 1st of this year to devote his whole time to the Central Union Company.

During his long residence in Columbus Mr. Reed has become thoroughly identified with the civic movements in that city. He has twice been elected president of the Athletic Club, a leading athletic and social organization and is now serving his second term.

JOSEPH W. STICKNEY.

Joseph W. Stickney, general manager for Indiana for the Central Union Telephone Company, has been in the telephone service practically all his life. He was born September 27, 1874, and finished his education at the Massachusetts Institute of Technology. He entered the employ of the New York Telephone Company in 1897. In 1898 he became an inspector in New York City for the American Telephone and Telegraph Company and was

made assistant wire chief in 1901. In 1903 he came west and took service in Indiana under L. N. Whitney, then division superintendent. After a short time in the Indiana Division offices he was appointed district superintendent for Eastern Indiana, with headquarters in Anderson. When the five-states organization was formed in 1911, Mr. Stickney was transferred to Chicago and connected with the office of the general agent for connecting companies. At the time of the reorganization of 1912 he returned to Indiana, this time as commercial superintendent. His appointment as general manager followed the resignation of L. N. Whitney from that office February 1st of this year.

During the ten years he has been with the Central Union in Indiana Mr. Stickney has made friends whom he can count by the hundreds. Commenting upon his appointment the *Anderson Bulletin* said:

"It was ten or twelve years ago that Joe Stickney came to Anderson from the East and became a district official of this (telephone) company with offices at Anderson.

"There never was a moment when he wasn't looking out for business and very



JOSEPH W. STICKNEY.

naturally his promotion since has been rapid.

"Stickney will keep on going up. His record is another of the evidences that there is ample opportunity to-day for young men who are willing to work and wait."

CURTIS H. ROTTGER.

Curtis H. Rottger, general manager for the Central Union Telephone Company in Illinois, while still a young man in years, is one of the oldest officials of the company in point of tenure of service.

Mr. Rottger was born in Jacksonville, Ill., January 16, 1865, and spent his early life in that city. In 1882, while attending the Jacksonville high school by day he entered the Central Union service as night operator and switchboard man for the Jacksonville exchange. He has been in the company's service continuously ever since.

After working at Jacksonville until March 1, 1884, he was appointed manager of the company's exchange at Paris, Ill. This position he held for ten months,

when he was transferred to Muncie, Ind., where he remained until April 1, 1886. With the exception of this small break, Mr. Rottger has been in the Illinois field continuously. In 1886 he had the opportunity to return as Central Union manager to his home town of Jacksonville, Ill. Here he remained until 1892 and was then assigned the more important managership of Springfield.

In 1903, Mr. Rottger was again promoted, this time to the position of division superintendent for Illinois, with headquarters at Springfield. On January 1, 1911, this title was changed to general superintendent, and in 1911 to commercial superintendent. This position he held at the time of his appointment as general manager for Illinois.

Mr. Rottger has a thorough practical knowledge of the details, as well as ability to conduct the general affairs of the telephone business. His wide acquaintance among the employees is nothing short of wonderful and has contributed in no small degree to his success in the administration of the company's business in Illinois. He also counts his friends, outside the telephone organization, by the hundreds in all parts of the state. There is probably no official in the entire organization who enjoys a greater personal popularity than does Mr. Rottger.

CHARLES M. NESBITT.

Charles M. Nesbitt, commercial superintendent of the Central Union Telephone Company for Indiana, has been in the telephone work almost since his days of knickerbockers.

Mr. Nesbitt was born at Greensburg, Ind., in 1877. He received his education in the schools of Greensburg, graduating from the high school. Alfred P. Bone, the father of A. R. Bone and J. C. Bone, both now with the Chicago Telephone Company, the former being general commercial superintendent and the latter in the Suburban plant department, owned the telephone exchange in Greensburg in the early days. Mr. Nesbitt and J. C. Bone were school boy friends, and while still in the high school they used to "shoot trouble" and make themselves generally busy and useful around the telephone exchange.

After graduation from the high school Mr. Nesbitt entered the postal service



CURTIS H. ROTTGER.



CHARLES M. NESBITT.

and was deputy postmaster at Greensburg for four years. In 1898 the Central Union Telephone Company acquired the Bone and Hamilton exchange at Greensburg and Mr. Nesbitt, who had never lost his keen interest in the telephone business, was offered the position of manager. During his two years as manager he also worked for the construction department, building toll and exchange lines, and in the right-of-way department under Robert Cline. Afterward he was made manager of eleven different properties of the Central Union Company throughout Indiana. In 1904 he was transferred to the district office in Anderson as special agent under R. W. Swan, district superintendent. In 1906 the duties were specialized and Mr. Nesbitt's title became district sublicense agent. During the next four years 117 connecting company agreements were made under the supervision of J. W. Stickney, who had become district superintendent. In 1911 Mr. Nesbitt succeeded Mr. Stickney as district superintendent, and became district commercial manager in April, 1911, when the functional organization was formed. This position he held until promoted in February, 1914, to the position of commercial superintendent with headquarters at Indianapolis.

WILLARD S. CRATER.

Willard Stanley Crater, who has just assumed the important position of commercial superintendent for the Ohio Division of the Central Union Telephone Company, has been in the telephone organization since 1901.

Mr. Crater was born July 12, 1873. As has sometimes been said of great men of antiquity, "We know little of his early life." He entered the Bell telephone service August 1, 1901, as a contract solicitor in the Ohio Division, continuing for several years in this work in which he was very successful. Later he went into the department of connecting companies, or sublicense department, as it was then called. In 1912, when R. R. Stevens was made commercial superintendent Mr. Crater succeeded him as head of his department with the title of agent for connecting companies and was again promoted to fill Mr. Stevens' position when the latter resigned as commercial superintendent in February, 1914.

Mr. Crater's success in the difficult and

important position of agent for connecting companies foretells a still more ample success in the broader duties of commercial superintendent.

THOMAS R. KEYES.

Thomas R. Keyes, recently appointed auditor of disbursements of the Central Union Telephone Company, is one of the younger men who have been promoted as a result of changes in the organization.

Mr. Keyes began his service with the Central Union Telephone Company January 1, 1901, as a clerk in the auditor's office. On November 1, 1901, he was appointed traveling auditor and during the ten years he held this position he formed the acquaintance and gained the friendship of hundreds of managers and other employes in the field. As a rule the position of traveling auditor is a trying one, but Mr. Keyes had the happy faculty of making his visits to the various exchanges not only agreeable but profitable to the managers and other employes whose accounts it was his duty to examine. In 1910 Mr. Keyes became chief



THOMAS R. KEYES.

quarters of the company were then, as now, at Chicago and Mr. Donaldson reached Chicago on June 30, 1890. He had a talk with Mr. Chapman and was told to go to work the next day. He showed up at the office the next morning and has been "on the job" ever since.

Mr. Donaldson's first employment was as assistant bookkeeper and his connection always has been with the accounting department. In 1892 he became contract clerk, in 1893 toll clerk, and in 1901 was in charge of the toll and tariff department. On January 1, 1904, he became chief clerk in the auditing department, then located at Indianapolis, and continued in this position until May 1, 1911, when he was transferred to Chicago and became chief clerk in the disbursements department of the joint accounting department of the Central Group. From April 1, 1913, until March 1, 1914, he was assigned to special work in the receipts department, which he resigned to become auditor of receipts of the Central Union Telephone Company.

Back in Scotland "Don" learned the game of golf and is still an enthusiastic summer and winter follower of the elusive white ball.



WILLARD S. CRATER.

traveling auditor and held this position until the formation of the Central Group organization in Chicago on May 1, 1911. At this time he was appointed supervisor of methods in the office of the auditor of disbursements of the five companies. From April 1, 1913, until March 1, 1914, he did special work in the office of the general auditor.

WILLIAM DONALDSON.

William Donaldson, auditor of receipts of the Central Union Telephone Company, is a telephone pioneer, having been in the service since 1890.

Mr. Donaldson, as his name might indicate, is a Scotchman. He was born November 12, 1865, in the town of Coupar Angus and spent his boyhood and early manhood in his native place. For some time he was employed in the offices of a large linen mill in Coupar Angus. In 1890 he determined to come to America. His excuse for this enterprise lay in the fact that he had an introduction to the late Wilson S. Chapman, who for many years was secretary and treasurer of the Central Union Telephone Company. Head-



WILLIAM DONALDSON.

MAURICE C. SETTER.

Maurice C. Setter, recently appointed supply agent of the Central Union Telephone Company, completed twenty years of service in the telephone organization in January of this year.

Mr. Setter is a Canadian, having been born in the village of Prairie la Portage, Manitoba, in 1866. His grandfather and father had been pioneers in this region, which was still at this date very sparsely settled. Mr. Setter can remember how in his boyhood there was sometimes fear of the Indians. Mr. Setter began his business career as a printer and worked in a number of job and newspaper offices from the Pacific Coast to Chicago. In 1894 he had the opportunity to secure a position as stenographer under J. C. Kenny, then purchasing and supply agent of the Chicago and Central Union Telephone Companies. Thus began a connection which has continued ever since. In 1897 he was made chief clerk in the Central Union supply department and supply agent in 1901 Mr. Kenny remaining as purchasing agent of both companies and supply agent of the Chicago company. Mr. Setter accompanied the Central Union general headquarters organization to Indianapolis in 1903 and continued as supply agent until the Western Electric Company took over the supply and purchasing departments.



MAURICE C. SETTER.

He then went with the Western Electric Company but returned to the Central Union a year later and took charge of the department of supplies in the general manager's office. Upon the formation of the Central group in 1911 he was transferred to Chicago and until his recent appointment of supply agent for the Central Union, was connected with the joint department of supplies under H. H. Henry.

ALBERT J. PARSONS.

Albert Jay Parsons, chief clerk to the receivers of the Central Union Telephone Company, graduated from the telegraph service. Beginning in 1886 he was with the Burlington and Rio Grande railroads and Western Union Telegraph Company as operator, wire chief and equipment man.

Mr. Parsons began his telephone career in Chicago in September 1897 as assistant wire chief for the American Tele-



ALBERT J. PARSONS.

phone and Telegraph Company. He continued with this company until February, 1905, holding successively the positions of assistant wire chief at the test station at Maumee, Ohio, division wire chief and manager at Maumee.

In 1905 he left the A. T. & T. ranks to take service with the Central Union Telephone Company; first as manager at South Bend, Ind., where he remained two years and made a good record. In February, 1907, he was transferred to the Illinois Division and placed in charge of relations with connecting companies under the several titles of division sublicense agent, special agent and agent for connecting companies. From April, 1913, to February, 1914, he assumed the duties of chief commercial agent for Illinois in addition to the connecting company relations.

In connection with his duties as chief commercial agent, Mr. Parsons was for some time correspondent for the BELL TELEPHONE NEWS for the Illinois Division.

Bell Telephone Bowling League

Standing of the Teams, March 17, 1914.

Team.	Won.	Lost.	Per cent.
Installation	58	14	.806
Engineers	55	17	.764
Commercial	48	21	.696
Traffic	45	27	.625
Maintenance	41	28	.594
Revenue	35	37	.486
Construction	31	41	.431
A. T. & T.	20	52	.278
Suburban Coml.	13	59	.181
Collectors	11	61	.153

The fight for first place in the standing of the Bell Telephone Bowling League of Chicago continues keen, with only a few more games to roll. The Installation and Engineers' teams are both confident of winning.

Rehearsals are in progress for the annual banquet and entertainment to be given at the Sherman House on the night of April 16th. All the bowlers will be there and the event will probably be the occasion, as usual, for a general informal gathering of telephone officials and employees at the banquet tables.

It is to be hoped that bowling will be included in the next athletic meet between the Chicago Telephone Company and the Western Electric Company.

On March 7th the all-star telephone team defeated the Western Electric team out of three games. The Western Electric team started out by winning the first game by fifty-six pins. The second game went to our boys by fifteen pins and the last game started with the telephone champions forty pins behind their opponents. This under ordinary conditions is a big handicap in a total pin contest. The Blue Bell boys, however, determined to defeat their ancient athletic rivals and rolled up a score of 1,002 against 826, winning the match by 134 pins. Following is the score by games:

Chicago Tel. Co. 851 956 1002—2808
Western Elec. Co. 907 941 826—2674

Bell Telephone Indoor League

STANDING OF TEAMS.

	Won.	Lost.	Pct.
Plant	11	1	.917
Auditor	11	2	.777
No. Installation	6	7	.462
Collection	5	7	.417
No. Construction	2	11	.154
Commercial	0	13	.000

Results of Games.

March 17th, 1914.
Auditor, 7; Commercial, 4.
March 18th, 1914.
Plant, 15; No. Installation, 6.
March 20th, 1914.
Collection, 11; No. Construction, 2.

With the end of the season almost at hand, all teams in the Bell Telephone Indoor Baseball League of Chicago are striving to make a good showing on their final averages.

The games throughout the season were hotly contested as the scores show.

The Plant team, which is leading, will have to work hard to hold its place and avoid being dispossessed of the lead by the "Auditor's" who are playing phenomenal ball. These teams will play the final game of the season Tuesday, March 31st, at St. Alphonsus Gymnasium, Southport, Wellington, and Lincoln avenues, and a great game is promised. If the "Auditor's" win they will be tied for first place.

The batteries for the latter team, Messrs. Dillon and Robertson, say they have a surprise to spring on the Plant team and expect to make away with the game with very little difficulty.

The North Installation and the Collection teams are fighting it out for third place and promise a lively battle for the honor.

Manager Waltz of the North Construction team thinks he can win fifth place in a walk and he is not worrying, he says, about the Commercial. Manager McCleery of the Commercial attributes the poor showing of his team to consistent hard luck but promises to carry off first honors next year.

The Submarine Telephone

What is probably the first ocean telephone call station is in Platte Fougere Lighthouse on a rock lying about a mile and a quarter to the northeast of Guernsey, Channel Islands. The lighthouse, which has no keeper, is fitted with a powerful fog-signal, says the Liverpool *Mercury*, worked from shore by means of a submarine cable. In a fog, ships creep up, guided by the foghorn, and drop anchor near the lighthouse until the fog lifts sufficiently to enable them to take the narrow channel to the harbors of Guernsey. In such case any pilot or ship's officer, by climbing the lighthouse, can ring up Guernsey telephone exchange and report his ship.

Annual Report of American Telephone and Telegraph Company for 1913

The continued growth of the Bell System, its earnings and expenses and general financial prosperity, its attitude as to government ownership, its agreement with the department of justice, the sale of its Western Union holdings and its relation with the general public are all set forth in detail in the annual report of the American Telephone and Telegraph Company issued in March.

President Theodore N. Vail has something very definite to say in regard to the government ownership of telephones and his frank discussion of this question is perhaps the most interesting feature of the report.

In summing up the attitude of the company towards this subject, Mr. Vail, says:

"Our opposition to government operation and ownership is not based on pecuniary, partisan, prejudiced or personal reasons. It is because of our interest in the upbuilding of a great public utility and its preservation.

"We are opposed to government ownership because we know that no government-owned telephone system in the world is giving as cheap and efficient service as the American public is getting from all its telephone companies. We do not believe that our government would be any exception to the rule."

He states that the common impression that the postmaster general has made a report favoring the acquisition of the wire lines is erroneous. It is not a departmental report, he says, but merely the conclusions of three officials of the Post Office Department, transmitted without comment by the postmaster general.

As to possible government purchase, Mr. Vail quotes Congressman Lewis, the congressional exponent of government ownership to the effect that there is no water in the Bell capitalization; and urges the stockholders not to be induced to part with their holdings through fear of confiscation.

He shows that there is a deficit in all government-owned systems and says that every telephone system in the world adopts the Bell System as a standard, uses the Bell operating methods and either uses Bell apparatus or copies it. And yet there is not one, he continues, that gives an approximation to the facilities that the Bell System gives or gives as good or as cheap service, all past prophecies to the contrary notwithstanding.

"These deficits are not the result of a definite policy to give a cheap service to individuals at the cost of all, but are due to errors in management such as underestimates of values and cost of new construction; disregard of maintenance, depreciation and particularly of obsolescence; impossible theories of operation, and a mistaken policy founded on promises, prophecies and assertions exactly the same in character as those now being used to bring about government ownership in this country, and upon a failure to understand and appreciate the advantages of private as distinguished from government organization.

"There are no sound reasons given," says the report, "or real advantages promised for government ownership and operation which do not apply to or cannot be secured by government regulation.

"Private initiative, invention, enter-

prise, risk, spurred on by the incentive of reward, have changed the face of the world, and the resulting unearned increment largely constitutes the wealth of nations; without it many of the great scientific industrial developments would have remained scientific curiosities, even if they had been evolved at all."

The advantages of one telephone system are clearly set forth, as are the differences between the exact technical knowledge required for operation and the judicial ability necessary for regulation.

"Government administration," the report says, "is more or less a game of politics, and while with government operation it may sometimes be possible to have efficiency, it will always be impossible to have economy.

"The government-owned European telephone plants, notwithstanding the low price of foreign labor, are carried at a much higher cost than those of the Bell System and yet every one of them uses the Bell System as a model. The book value of the plant of the Bell System per station is less than sixty per cent. that of Belgium; less than seventy-five per cent. that of Austria; about eighty-five per cent. that of Germany, Great Britain and Switzerland; and all of them government-owned."

Mr. Vail brings out the fact that Americans are better supplied with telephone facilities than any other people, having six times as many telephones per capita as Great Britain and thirteen times as many as France, and that the rates here are as popular as those of any government-owned plant.

In showing the inability of the Post Office to operate the telephone business efficiently, he says:

"The success of the parcel post has been set up as a reason for the government operation of the telephone and telegraph. Why it should be is hard to understand. The two services have nothing in common and are in no way comparable. The parcel post is not in any sense a new service; it has merely increased the volume of the mails by removing some limitations as to size and weight of packages mailed, and making some reduction in rates of postage for merchandise."

"It would not be a question of capacity; the experiment would be disastrous principally because the postmasters are not fitted by experience or training for the telegraph or telephone business, but also because it would be secondary to their grocery-dry-goods-notion shop, their principal business."

Another reason is that the telephone already reaches more places than there are post offices.

He concludes his remarks on this subject by saying that:

"The American public has been educated to depend on the most efficient, most extended telephone service in the world. The relative number of the people reached is the largest and the average cost to each is the lowest of any important service in the world."

"Government ownership would be an unregulated monopoly.

"Regulation by commissions of high standing composed of individuals of ability and integrity, and good impartial judgment, is the greatest protection to

the public interests as against private exactions that ever was devised; its effectiveness depends upon the standing with the public of the commission as a whole and the commissioners as individuals."

Growth of the Bell System.

During the past year subscribers' telephone stations have increased until now there are 8,133,017, a gain of 676,943. These stations reach 70,000 localities or 10,000 more than the number of post offices. The total wire mileage is 16,111,011 of which ninety-two per cent. is copper.

The number of daily telephone connections showed a growth of nearly two million, reaching an average of 27,237,000 a day. Europe has only two-fifths of the telephone traffic of the United States.

The extension of the telephone plant during the year amounted to \$54,871,856, making a total for fourteen years of \$646,915,200. According to present estimates the construction for the current year will cost in the neighborhood of \$56,000,000, of which the local resources of the companies will supply \$25,000,000.

The report says:

"The gross revenue in 1913 of the Bell System—not including the connected independent companies—was \$215,600,000; an increase of over \$16,000,000 over last year. Of this, operation consumed \$75,400,000; taxes \$11,300,000 or one and one-half per cent. on the outstanding capital obligations; current maintenance, \$32,500,000; and provision for depreciation, \$37,700,000.

"The surplus available for charges, etc., was \$58,700,000, of which \$16,700,000 was paid in interest and over \$30,300,000 was paid in dividends.

"The total capitalization, including inter-company items and duplications but excluding reacquired securities of the companies of the Bell System, is \$1,390,242,470. Of this \$620,127,086 is owned and in the treasury of the companies of the Bell System. The capital stock, bonds and notes payable outstanding in the hands of the public at the close of the year were \$770,115,384. If to this be added the current accounts payable, \$26,471,681, the total outstanding obligations of every kind were \$796,587,065 as against which there were liquid assets, cash and current accounts receivable, of \$72,237,885, leaving \$724,349,180 as the net permanent capital obligations of the whole system outstanding in the hands of the public."

In the case of the associated companies, excluding the American Telephone and Telegraph Company, particular attention is called to the per cent. of net earnings and of dividend and interest disbursements to total plant and other assets:

Net earnings to plant and other assets	5.69%
Dividends and interest to plant and other assets	4.92%

In other words, the property employed earned less than 6 per cent. per annum, and the dividends and interest paid were less than 5 per cent. upon the value of the property, which could not be considered unreasonable.

Taken by itself the American Telephone and Telegraph Company shows net earnings of \$40,576,746.19, an increase of \$2,669,101.93 over 1912. The total outstanding capital stock and bonds were \$504,207,300, which represent payments into the treasury of over \$24,500,000 more than the par value of the capital obligations.

The number of shareholders, 55,983, showed an increase of 5,686 during the year.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY.
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
A. BURT, *Vice President and Treasurer*
H. F. HILL, *Vice President*
W. I. MIZNER, *Secretary*
L. G. RICHARDSON, *General Counsel*
B. S. GARVEY, *General Auditor*
J. G. WRAY, *Chief Engineer*
CLIFFORD ARRICK, *Manager Publicity Department*

W. RUFUS ABBOTT, *General Manager*
Chicago, Ill.
H. O. SEYMOUR, *General Manager*,
Milwaukee, Wis.
ALLARD SMITH, *General Manager*,
Cleveland, Ohio
A. VON SCHLEGEL, *General Manager*
Detroit, Mich.
H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

*SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

APRIL, 1914.

Employees' Advances

Elsewhere in this issue appear two questions, recently submitted by an employee of the Central Group, and the answers thereto. They relate to cash advances to employees and to company loans. The inquiry suggests that there may be a misapprehension in the minds of some of our employees as to the true status of funds advanced by the telephone company to be used in the company's business. Such advances are made for specific purposes. They are trust funds and may not be used to meet the personal needs or for the personal benefit of the employee to whom they are entrusted. The money is the money of the company, and any diversion of it into personal channels is not only a breach of the company's rules but is a violation of law for which the offending employee is liable to prosecution on the charge of misappropriation of funds.

There is another feature connected with handling funds of the company advanced for use in paying expenses. All employees receiving and disbursing money belonging to the company and those to whom advances are made for the purpose of paying the company expenses, are under bond. Should it be reported to the bonding company that there had been a misappropriation of these funds or any part of them, the bond of the delinquent employee would be immediately cancelled.

These comments are made at this time because all do not seem to be perfectly clear on the subject; the queries referred to make this obvious. Such being the case, we feel impelled to touch upon it in order that no employee, either through misunderstanding or carelessness, may subject himself to criticism, or a possible charge of dishonesty. It would indeed be a source of regret to us, should such a situation arise, that we had failed to utter the timely word which would have probably saved shame and humiliation.

The Fire at Bellevue

The little village of Bellevue, Mich., is not a place where one would expect the privileges or advantages of a metropolis. This fact, however, did not deter the district and exchange forces of the Michigan State Telephone Company from treating the people to a sample of up-to-date enterprise.

One Saturday night in February at ten o'clock the building containing the exchange burned to the ground. The energy of MANAGER JARVIS saved the switchboard. Twenty-one hours later the exchange was again in working order in a new location. A great part of the outside work was done in a snow-storm while the mercury was sunk almost out of sight in the thermometer. It was a time to try men's mettle, but these men never shirked. They knew that Bellevue needed telephone service and they proceeded to supply that service. It is not surprising that the people were "highly pleased." The discom-

forts of midwinter without telephone service are too well remembered and even small communities have grown accustomed to its advantages.

As to Two Systems

In declaring its opposition to the establishment of a "competing" telephone system, the Public Utilities Commission of Illinois places itself in line with the best thought of the times. State commissions, municipal councils, business and civic organizations and in fact the public at large have reached the almost unanimous conclusion that telephone "competition" means duplication and duplication means waste for which the public must pay.

The theory that competition is needed to insure good service and proper rates, if it ever did have any justification, must fall before the plain fact that duplication is an economic error. To compel the whole body of telephone users to pay more in order that a part may pay less is indefensible. We cannot lift ourselves by our own boot straps.

Byron L. Smith

On Sunday, March 22nd, BYRON L. SMITH, president of the Northern Trust Company and a director of the Chicago Telephone Company, died at his Chicago home after a short illness. The death of this distinguished Chicagoan came as a shock to his friends and to the public. His illness was generally known, but a fatal termination was not anticipated and none was prepared for the sad news told in the morning newspapers.

In the death of BYRON L. SMITH the Chicago Telephone Company suffers a personal loss. A wise counsellor and devoted friend, he gave liberally of his time and advice in promoting not only the interests of the company but cordial relations between it and the public. His keen and active interest and his agreeable personality will be sadly missed by his associates on the Board of Directors. MR. SMITH was a notable figure in Chicago's banking and business circles and the banks of the city paid high tribute to the dead financier by suspending business from 2 to 2:10 p. m. on the day of the funeral.

Another and a gentler tribute will be paid by hundreds outside of the sterner walks of life, to whom his characteristic love for and interest in children had endeared him, a characteristic which points the lesson that hand in hand with shrewd business sense and commercial success may go gentleness and kindness.

A Voice From the Past

It is not discovering anything particularly new to find that the problems, difficulties and troubles which afflict us in these latter days have had their prototypes in earlier times, but it is sometimes interesting to read what was said and done under similar circumstances. In this connection the remarks of Daniel Webster in 1833 are worthy of being recalled during the period of destructive criticism which now prevails. In a speech in the senate, this greatest American statesman of his time said:

There are persons who constantly clamor. They complain of oppression, speculation and the pernicious influence of accumulated wealth. They cry out loudly against all banks and corporations and all means by which small capitalists become united in order to produce important and beneficial results. They carry on mad hostility against all established institutions. They would choke the fountain of industry and dry all streams. In a country of unbounded liberty they clamor against oppression. In a country of perfect equality they would move heaven and earth against privilege and monopoly. In a country where property is more evenly divided than anywhere else they rend the air shouting about agrarian doctrines. In a country where wages of labor are high beyond parallel they would teach the laborer that he is but an oppressed slave.

Explain This, Somebody

During the Illinois snow and sleet storm of February 23rd every Central Union and A. T. and T. circuit out of the Quincy exchange was in trouble except one old grounded circuit which had been practically abandoned and had not been maintained for years. This circuit talked right up without a whimper throughout the storm.

District and Division Collection Rating

JANUARY, 1914.

	Total charges.	Total credits.	Total unpaid Jan. 31.	Pct. credits total chgs.	Pct. cash col. to final accts.	Sta- tions.
1. Wisconsin Co., Appleton District.....	\$ 64,393	\$ 62,081	\$ 2,312	96.4	36.7	27,441
2. C. U. Co. (Indiana), Southern Dist.....	50,077	47,936	2,151	95.7	30.4	19,183
3. C. U. Co., Columbus District.....	84,438	79,812	4,626	94.5	13.1	22,758
4. C. U. Co. (Indiana), Northern Dist.....	76,136	69,423	6,713	91.2	22.1	26,108
5. C. U. Co., Chillicothe District.....	64,639	49,402	5,237	90.4	33.8	19,248
6. Michigan Co., Detroit District.....	364,896	328,672	36,224	90.	29.4	88,406
7. Wisconsin Co., Eau Claire District.....	35,791	31,753	4,038	88.7	15.6	13,853
8. Wisconsin Co., Madison District.....	38,838	34,424	4,414	88.6	32.3	16,771
9. C. U. Co., Centralia District.....	13,908	12,274	1,634	88.3	28.6	5,158
10. C. U. Co., Champaign District.....	7,877	6,950	927	88.2	33.5	2,467
11. C. U. Co., Jacksonville District.....	12,639	11,108	1,531	87.9	35.5	4,163
12. C. U. Co., Akron District.....	90,614	79,371	11,243	87.6	24.9	24,499
13. Wisconsin Co., Janesville District.....	12,394	10,840	1,554	87.4	31.8	4,670
14. Chicago Co., Aurora District.....	19,766	17,209	2,557	87.	46.8	6,931
15. Chicago Co., La Grange District.....	17,559	15,278	2,281	87.	41.4	5,210
16. C. U. Co., Dayton District.....	75,951	65,282	10,669	85.9	15.9	24,103
17. Chicago Co., Chicago Heights Dist.....	19,418	16,689	2,729	85.9	37.	6,143
18. C. U. Co., Toledo District.....	81,020	69,479	11,541	85.8	11.6	24,267
19. Chicago Co., Elgin District.....	17,187	14,694	2,493	85.5	40.5	6,175
20. Chicago Co., City Division.....	1,599,620	1,363,804	235,816	85.2	32.3	355,638
21. C. U. Co., Alton District.....	13,653	11,632	2,021	85.2	21.4	3,246
22. Chicago Co., Hammond District.....	32,910	27,897	5,013	84.8	25.6	8,233
23. Chicago Co., Joliet District.....	29,386	24,869	4,517	84.6	28.5	9,927
24. *Wisconsin Co., Milwaukee District.....	400,624	336,823	63,801	84.	40.8	64,407
25. Chicago Co., Woodstock Dist.....	10,058	8,446	1,612	84.	39.2	3,527
26. Chicago Co., Oak Park District.....	40,543	33,563	6,980	82.8	42.3	10,354
27. Chicago Co., Wheaton District.....	12,244	10,014	2,230	81.8	45.6	3,769
28. Chicago Co., Waukegan District.....	29,323	23,899	5,424	81.5	40.	7,773
29. Chicago Co., Evanston District.....	48,149	39,168	8,981	81.3	38.9	10,171
30. C. U. Co., (Indiana), Central Dist.....	160,493	124,753	35,740	77.7	19.9	32,741
31. C. U. Co., Rockford District.....	24,296	18,865	5,431	77.6	8.4	8,111
32. C. U. Co., La Salle District.....	8,616	6,673	1,943	77.4	15.9	2,624
33. C. U. Co., Quincy District.....	17,851	13,570	4,281	76.	...	5,479
34. C. U. Co., Rock Island District.....	35,503	26,891	8,612	75.7	7.8	10,902
35. *Cleveland Co., Cleveland Division.....	530,986	395,598	140,388	74.	21.7	59,473
36. C. U. Co., Peoria District.....	64,306	46,706	17,600	72.6	12.8	15,695
37. C. U. Co., Galesburg District.....	9,932	7,056	2,876	71.	5.5	3,531
38. C. U. Co., Springfield District.....	41,957	29,490	12,467	70.3	14.3	10,162
39. *Michigan Co., Saginaw District.....	64,129	44,336	19,793	69.1	12.4	15,883
40. C. U. Co., Decatur District.....	19,414	13,339	6,075	68.7	7.8	5,661
41. *Michigan Co., Sault Ste. Marie Dist.....	11,913	8,104	3,809	68.	55.9	1,691
42. C. U. Co., Kankakee District.....	19,895	13,439	6,456	67.5	3.9	6,251
43. C. U. Co., Paris District.....	3,595	2,325	1,270	64.7	19.7	1,498
44. *Michigan Co., Menominee District.....	30,565	18,776	11,789	61.4	39.8	4,761
45. *Michigan Co., Grand Rapids District.....	73,841	44,175	29,666	59.8	19.8	13,233
46. *Michigan Co., Potoskey District.....	29,877	17,345	12,532	58.	5.7	5,832
47. *Michigan Co., Lansing District.....	40,651	23,558	17,098	57.9	26.3	7,702
48. *Michigan Co., Kalamazoo District.....	81,920	47,022	34,898	57.4	21.2	14,984
49. *Michigan Co., Port Huron District.....	39,422	21,396	18,026	54.2	20.4	6,483
50. *Michigan Co., East Huron District.....	94,593	50,091	44,502	52.9	18.3	17,391
51. *Michigan Co., Jackson District.....	75,291	39,490	35,801	52.4	19.3	12,971
52. *Michigan Co., Marquette District.....	63,929	26,318	37,611	41.1	38.1	9,055
Total.....	\$4,901,976	\$3,942,093	\$959,883	80.4	...	1,091,841

*Quarterly rental billing.

DIVISION SUMMARY.

C. U. Co.—Ohio.....	\$ 386,662	\$ 343,846	\$ 43,316	88.8	18.7	114,905
Wisconsin Co.....	552,040	475,921	76,119	86.2	38.2	127,145
Chicago Co.—City.....	1,599,620	1,363,804	235,816	85.2	32.3	355,638
C. U. Co.—Indiana.....	286,706	242,102	44,604	84.4	21.3	78,087
Chicago Co.—Suburban.....	276,543	231,726	44,817	84.1	36.6	78,263
C. U. Co.—Illinois.....	293,442	220,318	73,124	75.1	12.9	84,938
Cleveland Co.....	535,936	395,598	140,338	74.	21.7	59,473
Michigan Co.....	971,027	669,278	301,749	68.9	26.8	193,392
Total.....	\$4,901,976	\$3,942,093	\$959,883	80.4	...	1,091,841

Exchange Collection Rating.

Exchanges in the Central Group at which collections range from 95 to 100 per cent of the total charges for collection during January, 1914, are given below:

City and State.	Per cent credit.	Stations.
Spencer, Ind.....	100	256
Burnett Junction, Wis.....	100	77
Brooklyn, Ind.....	100	75
Linden, Ind.....	100	70
Ashville, Ohio.....	100	24
Richmond, Ind.....	100	24
Elkhart, Ind.....	100	11
Plainfield, Ind.....	100	5
French Lick, Ind.....	99.7	438
Juneau, Wis.....	99.7	175
Columbus, Wis.....	99.6	866
Crawfordsville, Ind.....	99.4	2,893
Vincennes, Ind.....	99.4	2,568
Marshall, Ohio.....	99.4	168
Winneconne, Wis.....	99.3	135
Hart, Mich.....	99.3	53
Washington, Ind.....	99.2	1,557
Mayville, Wis.....	98.8	517
Smith Valley, Ind.....	98.3	57
Dyer, Ind.....	98.8	15
Horicon, Wis.....	98.7	362
Algoma, Wis.....	98.7	255
Sturgis, Mich.....	98.6	13
Manitowoc, Wis.....	98.5	1,530
Edwardsville, Ill.....	98.5	1,240
Auburn, Ind.....	98.4	1,070
Beaver Dam, Wis.....	98.3	1,471
Greenville, Mich.....	98.2	38
Rainsboro, Ohio.....	98	148

Jefferson, Wis.....	97.9	400
Menomonee, Wis.....	97.8	1,216
Hudson, Wis.....	97.8	573
Kewanee, Ill.....	97.7	417
Frankfort, Ind.....	97.6	2,150
Hartford, Wis.....	97.6	671
Hastings, Mich.....	97.6	14
Princeton, Wis.....	97.5	136
Watertown, Wis.....	97.4	946
Standish, Mich.....	97.4	145
Peotone, Ill.....	97.4	61
Galva, Ill.....	97.4	6
Berlin, Wis.....	97.3	424
Fairland, Ind.....	97.2	63
Logansport, Ind.....	97.3	59
Shelby, Mich.....	97.3	32
Peru, Ind.....	97.2	3,048
Kaukauna, Wis.....	97.2	462
Bedford, Ind.....	97.1	1,619
Stoughton, Wis.....	97	1,070
Burlington, Wis.....	97	742
Kewaunee, Wis.....	97	265
Waukesha, Wis.....	96.9	1,890
Oshkosh, Wis.....	96.8	4,424
Waupaca, Wis.....	96.8	501
Corliss, Wis.....	96.8	74
Hampshire, Ill.....	96.8	6
Fond du Lac, Wis.....	96.7	3,706
Shelbyville, Ind.....	96.7	1,991
Whitewater, Wis.....	96.7	899
Franklin, Ohio.....	96.7	643
Osceola, Ind.....	96.7	155
Appleton, Wis.....	96.6	2,725
Canal Winchester, Ohio.....	96.6	160
Anderson, Ind.....	96.4	3,221
Danville, Ohio.....	96.4	246
Green Bay, Wis.....	96.3	5,069

Manilla, Ind.....	96.3	64
Marinette, Wis.....	96.2	1,429
New London, Wis.....	96.2	565
Racine, Wis.....	96.1	6,435
Fort Atkinson, Wis.....	96.1	817
Shawano, Wis.....	96.1	433
North Freedom, Wis.....	96.1	144
Neenah-Menasha, Wis.....	96	1,545
Oconto, Wis.....	96	507
Elwood, Ind.....	95.9	1,339
Hartland, Wis.....	95.8	168
Oconto Falls, Wis.....	95.8	119
Okawville, Ill.....	95.8	16
Stevens Point, Wis.....	95.6	929
DePere, Wis.....	95.5	1,053
Hortonville, Wis.....	95.5	866
Stanley, Wis.....	95.5	366
Piqua, Ohio.....	95.5	357
Lewisville, Ind.....	95.5	178
Sturgeon Bay, Wis.....	95.4	773
Bayfield, Wis.....	95.4	251
Eau Claire, Wis.....	95.3	2,969
New Castle, Ind.....	95.3	1,540
Baraboo, Wis.....	95.3	791
Omro, Wis.....	95.3	555
West Bend, Wis.....	95.3	456
Lisbon, Ill.....	95.3	127
Red Granite, Wis.....	95.3	104
Bloomington, Ind.....	95	1,931
Vandalia, Ohio.....	95	159

Final Account Collection Rating.

Exchanges in the Central Group where accounts have been centralized six or more months, that collected 50 per cent, or better of the total subscribers' final bills, as shown on January, 1914, Collection Report:

	Pct. col- lected.	No. of stations.
Cumberland, Ind.....	100	119
Fairland, Ind.....	100	63
Bourneville, Ohio.....	100	52
Richmond, Ind.....	100	24
Champion, Mich.....	100	21
Humboldt, Mich.....	100	11
Hartland, Wis.....	97	168
Grand Haven, Mich.....	95.7	674
Naperville, Ill.....	89.7	511
Hastings, Mich.....	87.5	14
St. John, Ind.....	85.7	108
Dyer, Ind.....	83.3	15
Hampshire, Ill.....	83.3	6
Oconomowoc, Wis.....	81.3	639
Lake Geneva, Wis.....	79.3	1,110
Michigamme, Mich.....	78	24
St. Martins, Wis.....	77.4	248
Holland, Mich.....	75.5	103
Manitowoc, Wis.....	73.2	1,530
Algonquin, Ill.....	71.4	179
Wayland, Mich.....	71	159
Mayville, Wis.....	70	517
Circleville, Ohio.....	69.2	806
Genoa Junction, Wis.....	67.6	232
Delavan, Ill.....	66.7	293
Boggsstown, Ind.....	66.6	88
Peotone, Ill.....	66.6	61
Little Rock, Ill.....	66.6	51
Lombard, Ill.....	65.6	248
Greenwood, Ind.....	64.4	344
Lisbon, Ill.....	64.3	127
Sparta, Mich.....	63.4	292
Vincennes, Ind.....	62.8	2,568
Geneva, Ill.....	61.7	488
Corliss, Wis.....	61.2	74
Winnetka, Ill.....	61	1,206
Oswego, Ill.....	61	307
Yorkville, Ill.....	60.9	537
Glen Ellyn, Ill.....	59.6	404
Urbana, Ohio.....	59.6	238
Marinette, Wis.....	59.3	1,429
Lake Forest, Ill.....	59	1,173
Union, Ill.....	58.6	151
Fostoria, Ohio.....	58.5	1,370
North Crystal Lake, Ill.....	57.5	446
Cedarburg, Wis.....	57.1	184
Barberton, Ohio.....	56.5	57
Shelbyville, Ind.....	56.4	1,991
Morris, Ill.....	56	1,193
Lewisville, Ind.....	55.5	178
Lowell, Ind.....	55.2	776
Highland Park, Ill.....	55.1	1,535
Roselle, Ill.....	55	144
Athens, Ohio.....	54.6	645
Bartlett, Ill.....	54.2	241
Channahon, Ill.....	53.8	102
New Lenox, Ill.....	53.4	161
Marquette, Mich.....	53.3	1,786
West Bend, Wis.....	53.3	456
Plattville, Ill.....	52.9	160
Arlington Heights, Ill.....	52.8	496
Coal City, Ill.....	51.3	193
Libertyville, Ill.....	51.2	673
Morgan Park, Ill.....	51	720
Bellefontaine, Ohio.....	50.9	77
Port Washington, Wis.....	50.9	415
Bloomington, Ind.....	50.5	1,931
Portsmouth, Ohio.....	50.4	451
Wilmette, Ill.....	50.2	2,169
Elmhurst, Ill.....	50	539
Alexandria, Ind.....	50	404
Casmovia, Mich.....	50	249
Allegan, Mich.....	50	199
Huntley, Ill.....	50	197
Smith Valley, Ind.....	50	57

The Duty of the Public in the Control and Prevention of Outbreaks of Infectious Diseases.

By Dr. Alvah H. Doty, Medical Director Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company.

It is the hope and belief of those who are familiar with matters pertaining to the public health that infectious diseases or at least some of them may be exterminated. While this may seem hardly possible there is no special reason why it cannot be successfully accomplished if proper means are employed and the co-operation of the public is secured, the latter being a most valuable aid in obtaining this result.

History presents abundant evidence of the ravages caused by outbreaks of infectious diseases which are unrestricted in their course; on the other hand, we have unlimited proof that where proper sanitary regulations are strictly enforced such outbreaks are of comparatively short duration and are soon brought under control. To illustrate this we need only compare the very fatal results which in the past have followed the appearance of infectious diseases, where but little protection was afforded, with the success which follows the employment of modern health regulations. For instance, during the Fourteenth Century, Plague appeared in Western Europe and remained there, continuously active, for a number of years. It is estimated that during this period over 10,000,000 persons or about one-fourth of the entire population were destroyed. The inhabitants were helpless to prevent this devastation because the sanitary measures were of but little value or worthless, for at that time dependence was placed largely upon incantations, the burning of magic powders, etc., for protection against these dangers.

In striking contrast to this may be cited the fact that within the past few years an outbreak of this same disease, Plague, appeared among the Chinese population of San Francisco. It was early detected and modern sanitary regulations were promptly enforced, and as a result not more than 150 cases occurred during the comparatively short period that the disease was present, and with but little interference with the business or comfort of the inhabitants of the city, although there is no doubt that the character of the disease was the same in both instances and that the differences in the results were due chiefly to the means employed to prevent its extension. These same conditions have occurred in connection with outbreaks of Cholera as well as other infectious diseases.

It is a common belief that the Far East is the home of certain infectious diseases, particularly Plague and Cholera, and for this reason it is impossible to prevent their propagation. There is no truth in this beyond the fact that the natives are extremely ignorant and unclean and overcrowding exists to an extreme degree; besides, largely as a result of religious fanaticism; these people obstruct every form of modern sanitation which is undertaken for their welfare. For these reasons the East constitutes a menace to the health of every country for the diseases which they are constantly propagating reach almost every part of the globe. There is no doubt that if the same sanitary measures which are employed here were enforced in the East both

Plague and Cholera would disappear from the earth.

The wonderful change which has taken place in the prevention of infectious diseases through modern sanitary methods occurs principally in connection with what are known as quarantinable diseases, i. e., Plague, Cholera, Typhus Fever, Smallpox and Yellow Fever. As these are extremely infectious and—with the exception of Smallpox—which has been modified by vaccination—involve great danger to life, the law requires they shall be promptly isolated in hospitals or other buildings set apart for this purpose and kept under the close observation of health authorities. Therefore it may be said that successful results in dealing with outbreaks of infectious diseases *depend chiefly upon the prompt detection and isolation of the cases.*

Not many years ago Yellow Fever was almost continuously prevalent in South America, the West Indies, and also in the southern part of the United States. It would be difficult to estimate the loss of life and the interference with commerce caused by this disease, largely because the means by which it is transmitted was unknown. About 1898 it was discovered that the medium of infection is a variety of the mosquito known as the "Anopheles." Action was then taken by the United States government to exterminate this insect in Cuba with the most successful results for there have been few if any cases of this disease there for a number of years. These same results have also been accomplished in other countries and there is good reason to believe that Yellow Fever will be exterminated.

Outbreaks of the diseases just referred to occur only at long intervals simply because the cases are brought promptly and directly under the observation and care of the health authorities, otherwise they could not be successfully dealt with.

There is another group of infectious diseases which may be found almost everywhere and at any time. These are Scarlet Fever, Measles and Diphtheria. They are constantly with us because proper care is not taken to prevent their extension, largely for the reason that public health laws permit them to be cared for at home, although the propriety and safety of this has been seriously questioned. Many cases are treated only with domestic remedies, and but little or no care is taken to prevent their transmission; besides, it is a common belief among mothers that children are quite sure to have measles and scarlet fever, and that it is preferable that they should get through with them in early life. There could be no more dangerous or fallacious reasoning. Children should in every reasonable way be protected against these diseases for they are far more dangerous than it is generally supposed. While a large number of cases, particularly of diphtheria and scarlet fever, prove quickly fatal, others later succumb to complicating diseases, some have permanent loss of hearing or sight and some who have had scarlet fever become mentally defective.

Those who are constantly dealing with health matters recognize that the exter-

mination of this group of diseases or at least a great decrease in the number of cases is impossible without better coöperation on the part of the public. This means that every household should have a better understanding as to the danger of these diseases, not only so far as the patient is concerned, but should know the importance of isolation as a means of protection to others. The most dangerous media of infection are the mild or unrecognized cases, many of which are only slightly ill and the character of the disease can, as a rule, be detected only by a physician. However, these cases freely transmit infection. Another exceedingly dangerous factor in the transmission of infectious diseases is the belief on the part of the family that they are able to detect these various diseases and treat them without medical aid. Many children have died of diphtheria who might have been saved if what was apparently a simple sore throat had been promptly and properly cared for. It may truthfully be said that, so far as the protection to others is concerned, the isolation and preventive measures usually carried out by the family without the aid of a physician represent the lowest ebb of sanitation and as a rule are of little or no practical value.

Generally, there is a greatly increased number of cases of measles, diphtheria and scarlet fever occurring soon after the beginning of the school year. This was formerly believed to be due to the transmission of these diseases through the medium of the clothing of well children in whose homes infectious diseases had occurred. To-day we know that this is not the true explanation, for infection is only rarely transmitted by clothing, baggage, etc., *but rather by contact with those who are infected.*

Recently the departments of health in the large cities have established what are termed school corps. These are composed of medical officers who daily visit the public schools to examine the children. Many cases of infectious diseases are found without any special evidence of a deviation from health. This undoubtedly accounts for the increase in these cases after the opening of the schools. This method of inspection and the removal from school of those who are infected has gone far to diminish the number of cases of these diseases.

Health officials are constantly employing every reasonable and practical means to exterminate infectious diseases, but to be successful in this there must be more extended coöperation on the part of the public, particularly in the home. At present children with symptoms which even to laymen are suspicious of infectious diseases are commonly treated with domestic remedies and but little or no care is given to their isolation which is so necessary for the protection of others. Apparently, what may be regarded an ordinary sore throat often proves to be diphtheria or scarlet fever, and even if mild may transmit these diseases to others in the most malignant form. A cold in the head may be the beginning of measles or an eruption which the mother is quite sure is chickenpox may prove to be smallpox.

The course which should be followed by the family under these conditions, both for the safety of the patient and to prevent the transmission of disease to others, is to send at once for the family physician and let him determine the diagnosis of the case and the preventive measures and treatment which should be carried out.

This is not only the safe and proper course to pursue, but it is also economical for it insures more prompt recovery of the patient and less danger of the transmission of the diseases to others.

It is true that there are instances where the services of a physician cannot be obtained, although at the present day this is very unusual. If this should occur it must be remembered that the most important thing to do, so far as the prevention of infection is concerned, is the careful isolation of the patient in an apartment where communication is entirely cut off from everyone except the person who is in charge of the case.

Coöperation on the part of the public in this important matter is not only certain to diminish the number of cases of infectious diseases with a corresponding lessening of mortality, but will extend most important and valuable aid in exterminating this constant menace to health and life.

Obituary

BYRON L. SMITH, president of the Northern Trust Company, of Chicago, died Sunday, March 22d. Mr. Smith at the time of his death was a director and member of the executive committee of the Chicago Telephone Company and the Wisconsin Telephone Company. He had formerly been vice president of the Chicago company.

The death of Mr. Smith was preceded by an illness lasting but two weeks. He was stricken while on a business trip to the East. An infection of the throat leading to complications affecting the heart caused his death.

Mr. Smith started for New York in apparent good health. He was taken ill in Atlantic City and remained there for three days. He continued on to New York City, where he remained three days. He returned to Chicago dangerously ill.

Instead of improving after he had reached his home Mr. Smith grew steadily worse, and on Saturday night his heart refused to respond to treatment. He sank steadily until 1:30 o'clock Sunday afternoon, when death came.

Mr. Smith came from a family of bankers and began his commercial career as a bank messenger at the age of eighteen. His advance was steady, until as president of the Northern Trust Company Bank he was one of the most important figures in mid-western banking. He was a director of the Chicago and Northwestern Railroad, the Atchison, Topeka and Santa Fe Railroad and the Commonwealth Edison Company.

GEORGE ALBERT SCHMUTTE, commercial manager for the Central Union Telephone Company at Cairo, Ill., died at the Bonduant Hospital, Cairo, Saturday, March 14th. He was operated on for appendicitis on February 12th, but did not improve.

Mr. Schmutte was a native of Evansville, Ind. He would have been twenty-five years of age May 2nd next.

Mr. Schmutte before his connection with the Central Union Telephone Company was employed by the Schribner Loeher Jewelry Company, of Cleveland, Ohio, in the capacity of traveling salesman and resigned the position to associate himself with the Central Union Telephone Com-

pany. His service dates from August, 1911. He served the company in a commercial capacity at Springfield, and Alton, Ill., and was promoted to the position of commercial manager at Centralia on November 1, 1912, which position he filled in a way to reflect credit to himself and the company.

He was transferred from Centralia to Cairo in the capacity of commercial manager on November 1, 1912, and this position he held up to the time of his death.

He was married December 25, 1911, to Hazel Katterjohn, the daughter of C. M. Katterjohn, of Springfield, Ill.

Mr. Schmutte was a young man of strong personality and sterling worth. His quiet, courteous manner made personal friends of all who met him, and his prompt attention to the business and his courteous dealing with the company's patrons was daily increasing the number of the friends of the company in the community.

The funeral was held in Evansville.

DONALD ROBERT BURR, agent for connecting companies for the Wisconsin Telephone Company, died at his home in Milwaukee, March 2d, after a brief illness. He was one of the most capable and popular members of the Wisconsin company's force of young men.

Mr. Burr was born at Nenda, Ill., December 25th, 1876, and had therefore but recently passed his thirty-seventh year. Educated in the public schools of Elgin, he began his lifelong association with the telephone at Sandwich, Ill., in March 1898, when but twenty-two years old. His first connection was with the Northern Illinois Telephone Company. Later he worked for the Wetstein Construction Company as construction contractor. From March 9, 1903 to May 15, 1906 he was employed by the Winnebago County Telephone Company at Rockford, Ill., and on July 15, 1906 he was made special agent by the Wisconsin Telephone Company with headquarters at Milwaukee. He held this position until January 1, 1910, when he went to the Western Electric Company as a salesman in Chicago. On May 1, 1910 he became general manager of the Citizens Telephone Company at Racine, Wis., where he remained until April 1, 1911, when he returned to the Wisconsin Telephone Company as agent for connecting companies, the position he held at the time of his death.

Employees' Advance Funds.

QUESTION: Is it unlawful for an employe who has funds of the Company in his keeping as advances for expenses or otherwise to make advances to himself from such funds?

ANSWER: Yes. Such an act not only violates the rules of the Company, but is embezzlement and a crime, for which the employe may be punished.

QUESTION: Can an employe in need secure a loan from the Company?

ANSWER: Any employe who is pressed for funds for legitimate expenses as the result of sickness or misfortune may secure a loan from the company upon application to his superior and showing that he is worthy of the loan and that the same is for legitimate purposes.

Mr. Burr was married in 1901, to Alice Scott at Sandwich, Ill., and his wife and two daughters, Mary and Dorothy, survive him, as do his father, mother and two sisters.

Mr. Burr was a favorite among his business associates and his untimely death is sincerely mourned.

Storm in New York

The vicinity of New York City was hit by the worst storm of the season on the night of March 1st and heavy damage was suffered by all wire using companies. The storm was the most severe from a telephone standpoint, that had visited this territory in more than fifteen years. The telephone service of Manhattan and the Bronx and the greater part of Brooklyn suffered practically no damage, because there the wires are all underground. In the outlying section of Queens about 1,500 telephones were put out of service. On Long Island practically no damage was done. New Jersey bore the brunt of the storm and 3,000 poles went down and 30,000 telephones were put out of service. Communication to the towns along the Jersey shore and many towns in the northern part of the state was interrupted. In Rockland county about 1,300 telephones were put out of service, and on the toll line from Nyack to Suffern about 200 poles went down. In what is known as the Hudson Division of the New York Telephone Company—that is, territory on either side of the Hudson River, North of Rockland and Westchester counties, and extending west as far as Binghamton—the storm put about 100 trunk lines out of service, near Albany; and in Albany and Schenectady about 1,200 telephones were out of service. In the central and western part of the state, the damage was slight.

Service was, of course, restored promptly but the bill for damages will be about \$300,000.

Notwithstanding the severity of the storm, which was probably the worst ever experienced in the vicinity of New York, wire communication with the rest of the country was never for a moment interrupted, thanks to the underground cables of the American Telephone and Telegraph Company between New York, Philadelphia and Washington, and New York and Boston.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

The Social Side

This number of the BELL TELEPHONE NEWS will present so many pictures of social affairs that the casual observer might be excused for thinking the switchboards had been forsaken. We can assure them, however, it is only in appearance, for though the various companies have been having their winter festivities, the service that never stops has been going on without a break. And probably it has gone on all the better because if "all work

his impatience at the busy signal. He scored the telephone service in strong terms and finally called up the superintendent of traffic and began to relate his troubles in a most decided manner, berating the service and stating that the telephone operator at the exchange would not give him a number, though he knew that the line was not busy and it was a part of the "bad service" Chicago was getting. At this point the voice of the switchboard operator was heard. She said, "Mr. ——— (the superintendent)

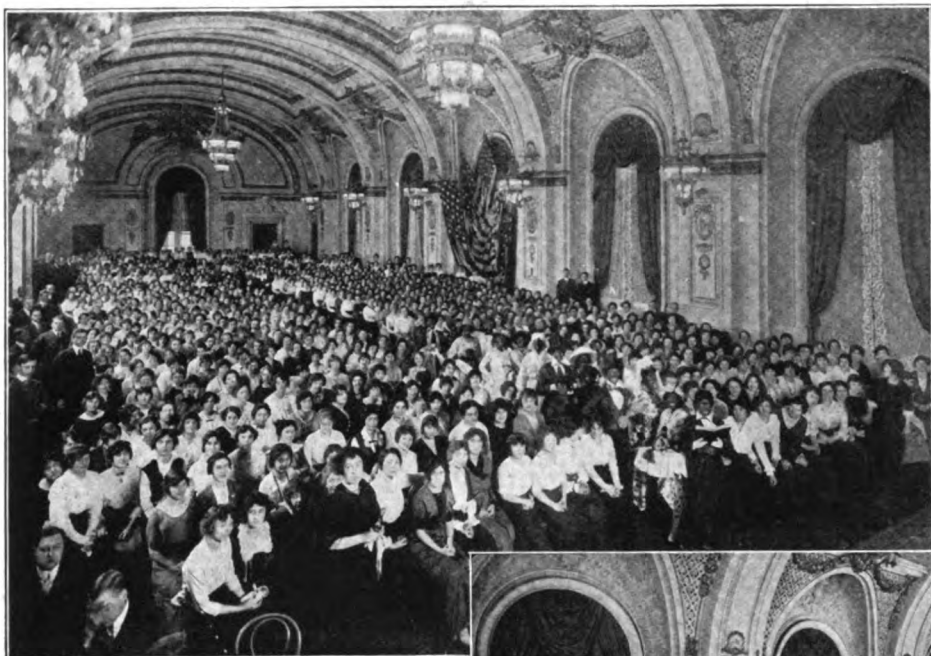
willing that anyone shall be blamed injustly, if they can help it.

Good Fellowship Entertainments For the Chicago Evening Force

The series of Good Fellowship parties given to the Chicago operating forces came to a splendid conclusion when the evening force of operators from the twenty-seven city exchanges were entertained at the LaSalle Hotel on the afternoons of Thursday, March 5th and March 12th. The banquet hall and red room on the nineteenth floor were reserved for the girls and about 1,500 were present each afternoon.

Every effort had been encouraged to make this series of parties jolly occasions where there should be perfect comradeship or fellowship, not only between the girls, but between the operating force and the managers and officers, and in these two last entertainments the fun ran high and if there was a serious moment in the entertainment, it was not discovered.

The play gotten up, almost on the spur of the moment, under the able leadership of Mary Casey, chief clerk of the traffic department, took the form of a kind of minstrel show. The girls represented a wedding party quite complete with bridesmaids, flower maidens, wedding march and all. To the strains of the orchestra playing the familiar wedding music, the party approached from the hall and the



CHICAGO EVENING FORCE AT LA SALLE HOTEL, THURSDAY AFTERNOON, MARCH 5TH.

and no play makes Jack a dull boy" it is equally true that a jolly party now and then with plenty of fun, makes Jack or Jill bright instead of dull, and the fellowship and friendship gained in social affairs of this kind bring better co-operation, and so better service.

In the operating rooms there must of course be order and quiet, rules and discipline. This is necessary to make the work go smoothly and for the sake of the operator herself, there has to be a certain routine. The more carefully the rules and regulations are worked out the easier the work will go on and the more perfectly acquainted the force is with the system the better it is.

But out of the operating room it is well to forget business and a good frolic and opportunity to meet socially, makes the work go easier when back at the boards. Happiness is one of the best health promoters and a good laugh often saves a doctor bill. The old saying is, "Care to our coffin, adds a nail no doubt, and every grin so merry draws one out."

Good Co-operation

A private exchange switchboard operator of a large concern was unable to give a caller his number, the line being busy. He insisted and became violent in



CHICAGO EVENING FORCE AT LA SALLE HOTEL, THURSDAY AFTERNOON, MARCH 12TH.

that is not true. The girl at the exchange was not at all to blame. The line into the office is busy and I have not been able to give the number, but the gentleman is entirely wrong in blaming the operator."

It was only one of many proofs that there is cooperation between the switchboard operators and the company, and it is also a fine example of the kind of girls who run the boards, girls who are not

laughter that greeted the group as they passed up to the stage hardly ceased until the end of the "show." Besides the many jokes on officials and amusing "take offs" of various managers and chief operators, which caused much merriment, the girls' make-up and acting were excruciatingly funny. The caste was as follows:

Bride—Catherine Burton, Edgewater.
Groom—Mae Touhy, Main.

Mother—Monica Keon, Hyde Park.
 Minister—Alice Hagan, Kedzie.
 Best Man—Catherine Guilanane, Yards.
 Bridesmaid—Myra Kane, Kedzie.
 Poor Relation—Anna Brignole, Kedzie.
 Rich Guest—Ada Lindblad, Edgewater.
 Sleepy Coon—Ruth Pitkin, Edgewater.
 Flower Girl—Florence Hands, Austin.
 Gold Dust Twins—Viola and Margaret Hagan.
 Pianist and Dancer—Berenice Bonner, Main.
 Maid, singing "Melinda's Wedding Day"—Agnes Bruzek, Main.
 Topsy—Celia Ryan, Humboldt.
 Clog Dancer—Durrell Hill, Belmont.

The dialect and acting were almost professional in excellence and the various songs showed voices of great beauty. Miss Bonner's dancing was nothing less than marvelous, and the little "Gold Dust Twins," who were the only outside talent (being sisters of the "minister") did some fancy dances and acted their parts with fine spirit.

There is not space to speak of the excellence of each part but every one was surprised at the talent which could at short notice produce an entertainment of such excellence.

At the end of the play a rousing cheer was given for Miss Casey, who deserved much credit for preparing the play and presenting it so successfully.

After the entertainment, the hall was cleared and the girls enjoyed an hour or two of dancing and social intercourse, at each of the performances.

Milwaukee Sewing Classes

Milwaukee operators are taking advantage of instructions in sewing under the supervision of the Milwaukee Continuation School. The Continuation School undertakes the teaching of sewing, where a class of twenty or more young ladies gets together regularly once each week.

Five classes have been formed among the operators in Milwaukee and at the present time 110 operators are learning how to sew.

The materials used for sewing may be bought from the school at cost or brought from home. After a garment is completed under the supervision of a teacher, it belongs to the maker.

It is expected that when the white shirtwaist is in season this spring, many Milwaukee operators will wear those which they made while attending sewing school during the winter months.

The teachers have, in all cases, been very kind and patient with the girls, some of whom knew not even the first essentials about sewing, but who are now making very beautiful, as well as useful things.

Fire Test at Moline

They tested a fire whistle at Moline, Ill., one day in February. A reporter of the *Moline Dispatch* knew it was a test but the general public did not. The reporter called at the exchange to observe what would happen and this is a part of what he wrote:

"Because the test was not publicly announced beforehand a volume of unnecessary work and nerve strain was imposed upon the twenty-five operators at the Central Union telephone exchange this forenoon. A *Dispatch* reporter was an eye witness to what the girls had to contend with during the hour the whistle was blowing and he made up his mind right away the girls don't have what might be classed as a 'soft' job.

"Where's the fire?" was the inquiry at every board, each one of which would display a signal each time the whistle was blown. This would continue for several minutes until the operators were physically unable to attend to the flood of



THE WEDDING PARTY, CHICAGO EVENING FORCE ENTERTAINMENT.

The picture is a good one, but does not do justice to the bright costumes worn by the dusky-faced performers, who appeared in regalia of every color of the rainbow.

'fire' calls, in addition to the regular normal run of calls, which alone are enough to keep a girl busy in order to give satisfactory service. It is estimated that no less than 1,200 unnecessary calls were received from 9 to 10 this morning and the

switchboard represented a tangle that to the layman certainly was bewildering.

"It so happened, too, at this critical hour, that electric street lights in the downtown section were set ablaze. That was the signal for a score of additional 'abnormal' calls, but to each inquiry there was a polite response that a new Third avenue electric sign was being tested out by the power company.

"When the whistle is to blow again—if for test purposes—Commissioner L. O. Jahns promises to give public notice a day in advance. The telephone girls will be much obliged to him if he does."

Experience of Snow-Bound Passengers

Passengers on Pennsylvania train No. 36 on the Louisville Division, were more fortunate than is the usual fate of the victims of such happenings, when their train stuck in the snow near Greenwood, Ind., on February 23rd. Their good luck consisted in the fact that within a few yards of the spot stood a vacant house and in this house was a Central Union telephone installed a few days previously for a subscriber who was about to move in. The stranded passengers gained entrance to this building and immediately got into touch with the outside world. The Greenwood exchange completed one call from this telephone to Jeffersonville, Ind., three to Indianapolis, three to Edinburg and one each to Martinsville, West Newton, Franklin, Fountaintown and Hope, as well as about twenty local calls.

Subscribers Entertain Operators

On Tuesday evening, February 24th, Mr. and Mrs. Lloyd White entertained practically the entire force of Waukegan operators at their home as an expression of appreciation of good service. The evening was spent playing cards and enjoying music. Dainty hand painted plates were given as prizes to Misses Mahoney and Mears. Refreshments were served and the evening was most delightful in every respect.



GROUP OF GIRLS IN OPERATORS' SHOW, CHICAGO.

Left (reading down)—Agnes Bruzek, Main; Ruth Pitkin, Edgewater.

Center (reading down)—Katherine Burton, Edgewater; Myra Kane, Kedzie; Bernice Bonner, Main; Alice Hogan, Kedzie; Durelle Hall, Belmont; Katherine Breen, Main.

Right (reading down)—Anna Huff, Belmont; Monica Keon, Hyde Park.

Dayton's First Flood Anniversary

The true inspiration back of the idea of commemorating March 25th is the conviction that "celebrating the heroic cheers and strengthens." No thought of recalling the horrors and the suffering of that day and those following, but with hearts full of thanksgiving, to recall the courage and heroism of a citizenship almost overwhelmed by disaster.

To keep alive that wonderful spirit of love and co-operation and determination to build again, better than before, on the ruins of the old—

To preserve that magnificent baptism of willingness to sacrifice self for the welfare of the community and to keep alive and strong that civic interest which was born that day—

To maintain the force of that true moral uplift that came to us and permeated the whole people and influenced thought and action—

To give an opportunity for Dayton, in a formal way, to express to the nation and her sister cities our true appreciation and thankfulness for the gifts of money, food and clothing and personal service that were poured upon us in sympathy and love—

To give ourselves again in a day's service for the good of all and thus keep alive the good that we must recognize was brought on that day.

FREDERICK H. RIKE, President.

—From Bulletin of Greater Dayton Association.

Appreciation of Benefits

The following strong testimonial to the value of the employees' benefit plan was received from an employee of the Chicago Telephone Company. His letter reads:

To the officials who were responsible for the creation of the Bell Telephone Companies' Employees Benefit Plan.

Gentlemen:

By this communication I wish to express my sincere thanks to you for the benefits I received through the Employees' Benefit Plan during a two months' illness from a severe case of pyriasis. While it has been several weeks since I returned to my work, I am still thankful and not a day goes by but what I still appreciate what your benefit plan did for me by way of wonderfully lifting the financial burden which would have weighted me down and no doubt have lengthened my illness. I had just built me a new cottage home, and had put all my money into it, and I no doubt would have been plunged into great financial distress, had it not been for the gratuitous benefits I received. I believe the plan will prove a strong factor in creating a higher degree of real, honest, conscientious service among the employees. Thanking you again for the benefits, I am,

Yours sincerely,

Operator Fools Highwayman

Anna Dittenthaler, an operator at the East office, Saginaw, Mich., was "held up" by a highwayman one evening recently while on her way home. She wore a diamond ring worth \$75, but had the presence of mind to slip this off her finger before removing her hand from her muff. The robber did not find the ring and as Miss Dittenthaler had no money she lost nothing.

"OVER THE TELEPHONE"

The breeziest, most catchy song ever written; it drives the blues with good advice:

"If on a party line,
Don't talk all the time,
To pretty Baby Mine,
Over the telephone."

By C. C. Miles, composer of "My Little Irish Rose." Ten cents a copy; mailed for 12 cents, stamps. Lyon & Healy, Chicago, Ill.—Adv.

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Suburban Promotions

February, 1914.

Aurora: L. Wesson, operator to supervisor.

Aurora: S. Bushnell, operator to supervisor.

Aurora: M. Lindenmeyer, supervisor to evening chief operator.

Wilmette: M. Meyer, operator to supervisor.

Hammond: R. Langbeen, operator to night supervisor.

Oak Park: M. Hall, operator to supervisor.

Dinner for Miss O'Brien

Senior supervisor Nora O'Brien of the Toll day force was surprised with a dinner Tuesday, March 10th, in the Main dining hall. The dinner, which was given by the supervisors and clerks, was a most delightful affair. The menu consisted of roast turkey, cranberry tarts, asparagus salad, salted almonds, nesselrode ice cream, cake and coffee. Wedding favors, candles and pink and white tulips decorated the tables. Miss O'Brien was presented by Mr. Ham on behalf of the Toll day force with an elegant set of flat silver, the design most chaste and the set complete. The sentiment expressed on the card accompanying the gift shows in what esteem Miss O'Brien, who has been with the Toll force for nineteen years, is held. It said, "We find it difficult to express how sincere are the good wishes we send you. May your future consist of real happiness in love and companionship, and added to this the love of friends."

A jolly evening was spent on the ninth floor with dancing and an amusing mock wedding. Mrs. Moore caught the wedding bouquet.

The marriage of Miss O'Brien to Patrick Morris took place March 17th. The bride wore a grey crepe meteor and grey hat. She was attended by Mr. and Miss Fitzgerald. Mr. and Mrs. Morris will reside in Chicago.

Thanks from Moody Church

The executive committee of Moody Church, North La Salle street and West Chicago avenue, sent a letter of "thanks for the exceptionally prompt service rendered through one of your operators, Miss E. Leinon, in calling the fire department at the time of the recent fire in our church. But for the prompt action of Miss Leinon," the letter states, "the loss would have indeed been much more serious."

Personal

Will J. Johnson and Fred Rueter, of the North Installation Division, have resigned and gone to Belmont, De Soto County, Fla., where they will take up government land and become farmers and fruit growers. Both were members of the "Carnation Four," a quartet of telephone vocalists.

The sympathy of many friends was extended to Miss Binmore, toll chief operator, in the loss of her brother, who died Sunday, March 1st, after a long illness. A number of Miss Binmore's friends in the traffic department attended the funeral services at St. Andrews church, where her brother was so highly esteemed, having been a member of the choir for twenty years. He was buried in his choir vestments and four of his pallbearers were from the choir.

Belmont force and many other friends in the company sympathized with Miss Schmansky in the loss of her mother, who died Monday, March 23rd.

Good Fellowship Parties

Lake View, Edgewater, Irving, Rogers Park and Humboldt gathered at the Main parlors, Tuesday evening, February 24th, for dinner together and a social evening in the series of good fellowship parties in the traffic department of the Chicago Telephone Company. The tables in the large dining room were filled with the large company and enthusiasm ran high as each office cheered for favorite managers and chief operator or for the Chicago company.

Among the novelties of this special party

were dainty silver bells worn by the Edgewater, Lake View and Rogers Park girls.

The program which followed the dinner was unique and most amusing. The Humboldt minstrels, dressed in Aunt Jemima fashion, convulsed the audience with their songs and dances. You could not have guessed it but they were Celia Ryan, Mamie Holloran, Emma Schuster, Susan McKinley, Martha Kreutzer, Alida Gumpert, Louise Muth, Arabella Killian, Myrtle Clark, Bernadine MacNutt. They were accompanied by Jessie Alexander at the piano. The fun that Humboldt started was well kept up by Edgewater and the following young ladies showed much minstrel ability: Kate Burton, Ada Lindblad, Rose Pitkin, Genevive Mertz, Anna Schwab and Mabel Eul. Their songs were accompanied on the piano by Lillian Lavell. The various jokes and "slams" were well received, even to the new suit presented to Mr. Cooper.

Lake View added a different feature to the entertainment which was fully appreciated. Elizabeth Mile, dressed in Spanish costume, danced some attractive Spanish dances very gracefully, and a chorus consisting of Josephine Kelly, Agnes Schultz, Marie Jensen and Lillian Waldin gave songs and jokes which met with hearty applause. Marie Drier accompanied on the piano. The dancing was enjoyed by all after the program.

Austin, Belmont and Kedzie followed with a party Thursday evening, February 26th. After the banquet in the large dining room the party adjourned to the ninth floor assembly hall, where the setting had been arranged for a play. It was "The Burglar," and it was given with great spirit and showed no little ability on the part of the actors. Even the hero of the play did not carry off all the honors, though he was the only man in it, and was a general favorite all the evening. In fact many sought his acquaintance after the play and judging from the affectionate manner of the young ladies who sat out several dances with him, he added much to the pleasure of the evening. We are glad that we secured almost a speaking likeness of "the burglar" and are sure that the Austin office will be glad to see his familiar face looking from our pages.

The young ladies who took part in the amusing farce were: Myra Kane, Kedzie; Anna Huff, Belmont; Durrell Hall, Belmont; Anna Brignole, Kedzie, and Florence Hands, Austin.



GIRLS WHO TOOK PART IN "THE BURGLAR."



"THE BURGLAR."

Visitor from Michigan

Mary K. Thompson, who is the bookkeeper for the St. Clair Central Telephone Company of Memphis, Mich., visited Oakland office Tuesday, March 17th, and lunched with the chief operator, Miss Hamilton. Miss Thompson was very much interested in the work. The office at St. Clair has a force of three operators.

Death of Marie Vila

Although on account of her long illness, Marie Vila had not been with the operating force in North division for nearly two years, the news of her death Saturday, March 7th, came with a shock to her many friends, who had been associated with her and who loved her for her sweet and happy disposition, and her faithfulness and splendid record as an operator were recalled in North and Lincoln offices. After she left Lincoln exchange on account of ill health she went south with her mother and remained there for a long time, but the change did not build her up as was hoped.

The funeral was at St. Clement's church, and the text, "Blessed in His eyes are the death of His Saints," with the appreciation of the character of Miss Vila must have comforted the mother, for whom great sympathy is felt, as she is left entirely alone.

Misses Mary McCauley, Katherine Sullivan, Ella Willard and Agnes Brown served as pallbearers.

Weddings

Emma Schmidt, toll operator for five years, was married March 18th.

Rose Greenwald, toll operator for three years, resigned and was married March 17th to F. L. Andrus. She will make her home in San Francisco.

Waukegan District Exchanges.

Waukegan
grays Lake
highland park
lake Villa
fox lake
round lake
deerfield
lake forest
libertyville
lake zurich
zion city
wauconda
antioch

Wisconsin Division

T. N. Moore, Correspondent,
Milwaukee

Mothers Entertained at Janesville

The operators of the Janesville office entertained for their mothers on Friday, February 27th, from 2 to 5 o'clock p. m. A very interesting as well as very enjoyable afternoon was spent. Besides giving the mothers an opportunity to become acquainted with one another, it enabled them to become familiar with operating conditions. All indicated that they were very well pleased and promised to call again. Sherbet, cookies and cakes were served, Miss Callahan taking care of this part of the program. Those present were: Mesdames Edw. Smith, Anna Hoague, John Woods, E. E. Vanpool, A. H. Burns, Ida Buck, William Dutton, Mary Elliott, O. Helander, F. W. Holden, M. J. Powers, W. F. Keating, J. B. Callahan, C. J. Rice, S. C. Burnham and Miss Elizabeth Rosche, social secretary, Milwaukee.

Main Party at Milwaukee

Main office operators, Milwaukee, numbering eighty-five, attended a Washington's Birthday celebration on the evening of February 22nd in the operators' parlors, Grand office. A very pretty program was arranged by the girls and was greatly enjoyed. The program opened with the singing of "Star Spangled Banner"; other numbers on the program being a minuet danced in colonial costume by the Misses Berdie Luebeck, Malinda Krause, Helen Fons, Edith Norell, Rose Brockel, Marie Della, Harriet Schelong and Ethel Hayes; recitations, Ottillie Hawley; songs, Ella Grede; tableaux, Jessie Kratochvil.

Milwaukee Valentine Party

Milwaukee toll operators enjoyed a Valentine party on the evening of February 12th. About ninety toll operators attended and the program, which was most enjoyable, having been arranged by the girls, was as follows:

Piano Solo—"Cavalleria Rusticana"—Florella Pierson.
Gypsy Dance—Bessie Reddy.
Vocal Duet—"Love's Old Sweet Song"—Meta Burge, soprano.
Florella Pierson, alto.
Piano Solo—"Meditation"—Maud Bondy.
Vocal Solo—"Selected"—Elsie Makus.
Vocal Duet—"Sunshine and Roses"—Jennie Hogan, soprano.
Ester Rank, alto.

The decorations were red and white, in keeping with St. Valentine, and cupids and hearts were very plentiful.

Appleton District

During the month of February plant meetings were held at Appleton and Sturgeon Bay. The Appleton meeting was in charge of Mr. Killam, plant superintendent, assisted by Mr. Brennan and Mr. Schroeder, Milwaukee, and was attended by plant men from the Appleton, Kaukauna, Manitowoc, Hortonville, Waupaca, New London, Neenah, Omro and Berlin offices. The Sturgeon Bay meeting was attended by the plant employees from the Kewaunee, Algoma and Sturgeon Bay exchanges, and also by Mr. Brennan and Mr. Schroeder, of Milwaukee, and Mr. Quilan and Mr. Hobbins, of the Appleton office.

A contract has been secured to install a No. 1 private branch exchange in the new First National Bank Building, Appleton. Thirteen stations are to be connected.

A cordless private exchange of three trunks and seven stations has been installed at the Kimberly-Clark Company's mills at Kimberly, Wis.

F. Kalmbach, toll repairman at Plymouth, has been transferred to the engineering department at Milwaukee.

On February 17th Martha Deviley entertained a number of the Wisconsin Telephone Company girls at the home of Mrs. Barlament on the Little Suamico road. A sleigh ride was enjoyed to her home. Mrs. P. Moes acting as chaperon. Refreshments were served and a delightful evening was spent by all.

B. S. Parish, district traffic chief, conducted a very successful meeting of the operators at Green Bay.

In appreciation of the good service rendered, the operators and commercial employees each received a dozen carnations from a leading florist in Manitowoc.

Manitowoc employees enjoyed a sleigh ride on the evening of February 17th.

The Farm and Village Telephone Company at Crivitz, Wisconsin, has reorganized and incorporated under the name of the Crivitz Rural Telephone Company, with a capital stock of \$10,000. The company intends to rebuild its system and move into new quarters in the spring, at which time it will also install new switchboard and additional equipment, and expects to increase subscribers to 100 before fall.

Foreman Hans Hansen and crew are at present engaged in stringing two additional circuits between Neenah and Larsen. When completed there will be five circuits connecting the Larsen Telephone Company's exchange with the Neenah exchange.

At the close of the operators' meeting held at the Neenah-Menasha exchange January 27th, the operators served a "Dutch" supper, to which the members of the commercial and plant departments were invited.

January 15th was Visiting Day at the Oshkosh exchange. Between 600 and 700 people took advantage of the opportunity to inspect the exchange.

The traffic department held very successful meetings at the Oshkosh exchange.

The Door County Telephone Company, a connecting company, operating six grounded lines out of the Sturgeon Bay exchange, will make its lines metallic in the near future. This company now has eighty-two subscribers.

A. R. Henderson has resigned his position as manager of the Princeton, Red Granite and Green Lake exchanges, and is succeeded by O. R. Klenitz, former manager at Omro.

Eau Claire District

Ralph Kromrow, of Eau Claire, has succeeded Lillian Dreyer as Morse operator at the Hudson Class 10-A office. Miss Dreyer has returned to her home in Milwaukee.

Winnifred Kent, local operator at Bayfield, resigned to be married and is succeeded by Ingaborg Skovold.

The Bayfield Farmers' Telephone Company is arranging to add one more circuit to the Bayfield exchange.

Ruby Wilson, supervisor at the Superior exchange, has been confined to her home with scarlet fever.

Rose O'Connor, toll operator, took Miss Wilson's place during her illness.

Arthur Curry, formerly collector at Ashland, has been transferred to Superior as commercial agent.

The chief operator and her force at Superior received a very beautiful bouquet of flowers from the Superior Floral Company in appreciation of the good local and toll services rendered this firm.

The Superior exchange is having regular semi-monthly meetings for the traffic, plant and commercial departments. Each department holds its meetings on a different evening and a great deal of benefit is being obtained.

About 6 o'clock on the evening of March 4th a fire broke out at Solon Springs, Wis., and completely burned out the telephone office; also several poles in the main toll line lead at this station. Shortly after news of the fire was received, H. R. Shortman, repairman, left Superior on a special train carrying fire apparatus, and three hours after the fire he had restored service at Solon Springs.

Elsie Brown, operator at Menomonie, gave a theater party February 28th, her birthday. After the entertainment the operators congregated at Miss Brown's residence, where luncheon was served.

District Plant Chief J. V. Young inspected the Menomonie exchange during March, and while there held a meeting of the traffic department for the purpose of discussing peg counts.

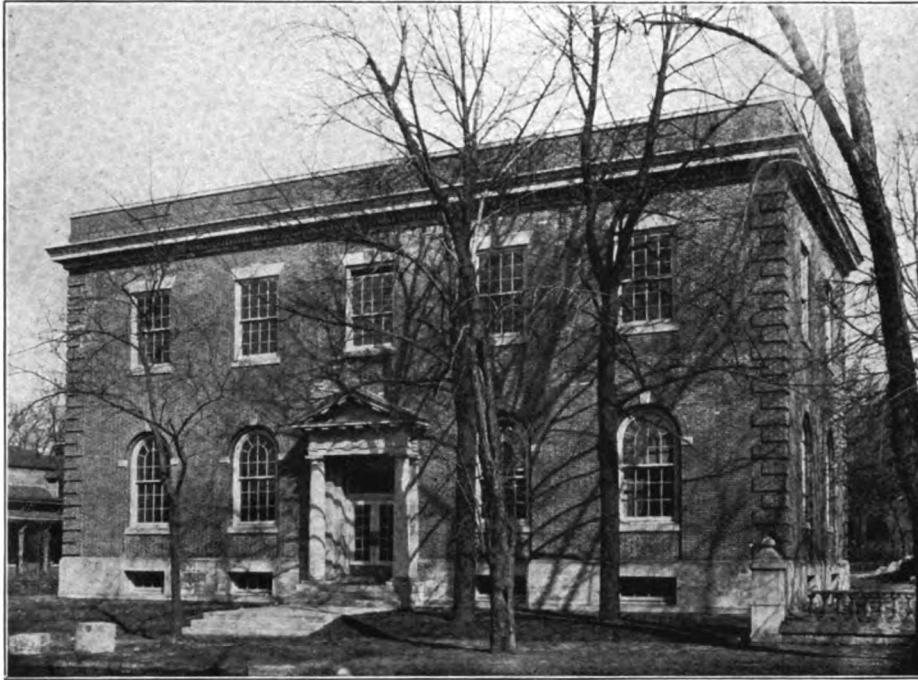
On March 14th a meeting was held at the manager's office at Menomonie and all employees were present. This was the third annual meeting of all employees, as the exchange was checked over to Manager Howe on March 14, 1911, and during the past three years has had an increase of 343 stations. Mr. Howe gave a half hour's talk on co-operation, efficiency and how to get pleasure out of our work. Other short talks were made by Morse Operator George P. Thompson and Repairman Oscar Peterson.

Madison District

Edna Dollard has resigned as toll operator at Baraboo and is succeeded by Loretta Koons.

The Baraboo operators entertained at a valentine party in their spacious rest room in the exchange building on the evening of February 14th. The room was especially decorated for the occasion and refreshments were served.

Verna Wollenberg, formerly toll operator



NEW EXCHANGE BUILDING OF THE CENTRAL UNION TELEPHONE COMPANY AT ROCK ISLAND, ILL.

The new Central Union Building, as shown above, has recently been completed, and the commercial and plant departments are now occupying it. The building is located on South Eighteenth street, very close to the wire center for the Rock Island territory.

at Baraboo exchange, has resigned to be married. She will be succeeded by Catherine Mullins, a local operator.

Melva Marthaler has returned to her duties as assistant chief operator at Beaver Dam after an illness of about one month.

On February 25th some of the operators and their friends at Beaver Dam had a sleigh-ride party to Burnette Junction, being guests of Mr. and Mrs. Lester Peachy. While there they partook of a sumptuous oyster supper. Games were played and a very enjoyable evening spent. They also visited the Burnette Junction exchange. Mrs. Peachy was formerly an operator at Burnette Junction.

Alma Cassabaum, local operator at Beaver Dam, spent a week's vacation at Ina, Wis.

Etta Grass of the Jefferson exchange attended a telephone party given by the operators at the Ft. Atkinson exchange.

Roy Gibbs, formerly clerk for the local wire chief at Madison, now occupies a similar position in the district office.

Fred Cummings, formerly collection clerk at Madison, now occupies a position with the State Tax Commission.

Grace Monks, formerly employed as assistant toll clerk at Madison, now occupying a similar position at Chicago, was a recent visitor at Madison.

Mary Schallenberg and Nora Richards, former operators at Madison, now filling positions as chief and assistant chief operators, respectively, at Kankakee, Ill., visited at the Madison exchange recently.

Ella Kreuger, toll supervisor at Madison, was pleasantly surprised by a number of toll operators. The occasion being her birthday, Miss Kreuger was presented with a beautiful neck chain. The evening was spent in games and dancing and as a fitting finishing touch, a very appetizing supper was served.

Olga Peterson, local supervisor at Madison, was married in Milwaukee, February 7th, to Louis G. Schmidt.

Bradford Hamilton, district clerk at Madison, has resigned to continue his studies at the State University.

C. L. Miller, district manager at Madison, accompanied by Mrs. Miller, attended the operators' annual dance at Janesville. Mr. Miller was formerly district manager of the Janesville district.

The operators at the Madison exchange received complimentary tickets to a number of attractions from Mr. Chaffell, manager of the Fuller Opera House, as an appreciation of good service.

Milwaukee District

A meeting of managers of the exchanges in the Milwaukee District was held in Milwaukee, February 27th and 28th, at which commercial practices and routines generally

were discussed. The meeting was attended by the managers from Burlington, Port Washington, Delavan, Genoa Junction, Hartford, Hartland, Kenosha, Lake Geneva, Mayville, Oconomowoc, South Milwaukee, Waukesha, and West Bend. Also the commercial agents, wire chiefs and chief clerks from the Racine and Kenosha exchanges.

Illinois Division

C. H. Rottger, Correspondent,
Springfield

Division Offices

Helen Hoge, stenographer in the general manager's office, is able to be out after an illness of several months.

W. E. Farney, chief clerk to the general manager, has been appointed division cashier.

Alton District

William Kennedy, collector at Alton, has resigned and will leave for Los Angeles, Calif. He was succeeded by Walter Straube.

The operators at Alton gave a bob-sled ride on the evening of February 24th. There were about ten couples in the crowd. They took their refreshments with them and journeyed to Fosterburg, about three miles from Alton, returning home before midnight, having spent a delightful evening.

Champaign District

Contracts have been secured from the W. Lewis & Company Department Store covering the installation of a No. 4 private branch exchange consisting of two trunks and sixteen stations.

Lillie Smith, chief operator, made a ten days' visit to relatives in Kentucky.

Snowbound subscribers made excellent use of their telephones during the storm of February 23rd and 24th. With two extra local operators on duty it was almost impossible to handle all calls promptly.

Champaign toll business increased about ninety-five per cent. above the average during the last week of February due to the scarlet fever epidemic here. As the toll lines were not in the best condition at this time on account of the severe storm of February 23rd, serious difficulty was experienced in handling the business.

Galesburg District

C. E. Wood, testman, has been off duty several weeks on account of sickness and by the doctors' orders was removed to the city hospital, where he is slowly improving.

The Macomb Telephone Company recently installed considerable new cable and an additional section of switchboard. The company had a splendid business during the past year and the people of Macomb are all pleased with the service they are getting.

The plant department recently installed test panels in the connecting company's offices at Abingdon and Macomb.

W. G. Lehman, manager of the Ideal Telephone Company at Yates City, was a caller at the Galesburg exchange recently.

Managers Quimby of Kewanee and Shorts of Oquawka were in Galesburg attending the regular monthly meeting of the Bell Telephone Employees Association, and enjoyed the lunch and smoker that followed the meeting.

Jacksonville District

Viola Duncan, collector at Jacksonville, has resigned and gone to Aledo, Ill., where she has accepted a position as milliner. Carrie Henderson, night operator, has accepted the position of collector.

Once more the Jacksonville Plant Department has come into the limelight, this time in the possible saving of a human life. On the afternoon of February 6th, a permanent signal was reported on telephone No. 287, and within five minutes Repairman Anders was on the scene. Having cleared some trouble in this district, he had called the wire chief for instructions. Simultaneously the subscriber's card was delivered to the wire chief, who dispatched the repairman on the trouble. On arriving at the house, Mr. Anders was unable to arouse anyone, but finding the door open walked in and saw the telephone on the floor. Looking into an adjoining room he saw the form of a woman lying on the floor. He spoke to her, but failed to get a response. He immediately summoned neighbors, who found the woman unconscious. Medical aid was summoned, and after several hours, the lady was revived. She had gone to the telephone to call a number, but before the party answered she had dropped the instrument and was found as above. The plant department received the thanks and praise from the subscriber for promptness of the repairman.

La Salle District

Collecting under the mailing plan was started at LaSalle, March 1st.

Work on the tow-path has been completed by Foreman Champion.

A central station for receiving subscribers' payments has been established at Walther's Drug Store, Peru, and Peru subscribers will not have to pay in LaSalle.

Rose Feray, an employee of the commercial department, has entirely recovered and is again at work.

Paris District

Material is on hand from the Western Electric Company to install one section of No. 1, A board, 300 multiple, 140 answering jacks and ten toll lines in the Mattoon office (connecting company) and for 200 multiple in the Charleston office (connecting company).

A No. 2 private branch exchange will soon be in operation in the general offices of the Coles County Telephone and Telegraph Company at Mattoon, connecting all departments. It will consist of twelve stations and four trunks.

Plant Chiefs Hart of Champaign, Parrish of Paris, and Gable of Decatur visited the Coles County Company's exchanges at Mattoon recently. Gable will probably come again almost any time, but Hart and Parrish will never come again on election day.

City Repairman Ernest Sanders of Mattoon and Grace Crabtree, until recently an operator at the same exchange, were married in January. About two weeks later they were given a surprise party by the telephone "boys and girls." A fine time was enjoyed.

Mattoon was visited by a thirty-six hour blizzard February 22nd and 23rd. It was the worst in years. While the storm did not cause much damage the different troubles were very hard to reach on account of the trains being stalled in the snowdrifts and streets and roads being blocked with snow. Toll Repairmen Orville Stark and Frank Osborn "hoofed it" on many long trips for several days.

Utility man Frank Osborn, of Mattoon, became the hero of the hour by extinguishing

a fire in the attic of the house in which two of the Mattoon operators reside. Smelling smoke these two young ladies summoned "Frank" to investigate. (He was incidentally visiting next door.) Mounting a ladder he pulled himself into the attic and extracting a fire extinguisher from his pocket he soon subdued the flames.

Peoria District

A private branch exchange has just been installed for Brown's Business College, Peoria, consisting of one trunk, one switchboard and six stations.

Contracts have been secured covering one No. 4 private branch exchange with two trunks, one switchboard and thirty stations to be installed in the Deaconess Hospital, Peoria.

Louis Ostrinsky has accepted a position as stenographer in the plant department at Peoria, succeeding Charles Huey, who has accepted a position with the Parlin & Orendorf Company at Canton.

O. T. Brown, storeroom man at Peoria, resigned to engage in farming. On the evening of his departure he was called before a crowd of the Peoria force (mostly his lady admirers) and presented with a shaving outfit.

Henry A. Stever, formerly repairman, succeeds O. T. Brown as storeroom man at Peoria.

Milo Garside has taken the position of repairman at Peoria, succeeding Henry A. Stever.

The traffic department gave its first dancing and card party at the Knights of Columbus Hall on the evening of February 17th. There were about 200 in attendance and every one reported spending an enjoyable evening. Cards were played by those who did not wish to indulge in dancing.

G. C. Treadway, district commercial manager at Peoria, returned from his honeymoon February 17th and found his office decorated for the occasion; hearts predominated, and the customary signs regarding Cupid's work adorned the place, while a large placard, portraying the eclipse of the Peoria girls by a charming Galesburg girl who was the chosen one, was in a conspicuous place on the wall. A warm welcome was extended to Mr. Treadway and his bride.

Rockford District

Nineteen members of the commercial and traffic departments recently witnessed Flisk O'Hara's production of "In Old Dublin" at the Grand Opera House.

Ruth Peterson and Mabel Apitz, toll operators, spent a few days in Chicago, and while there visited some of the Chicago exchanges.

R. J. Schamel, formerly wire chief at Rock Island, has been transferred to Galena, as manager, succeeding E. B. Williamson.

The plant department held a meeting on March 4th which was attended by all plant employees. Various circuit and station cost data were discussed. After the business meeting a smoker was enjoyed.

Springfield District

The Western Electric Company has just completed two new sections of No. 1 switchboard with automatic cord circuits and 860 additional answering jacks at the Main exchange, Springfield.

Katie Failing, local operator, resigned February 28th. She will be married in the near future to John Shennick, and will reside in St. Louis.

Mrs. Hattie Peek, local supervisor, who



SNAPPED UNAWARES.

A. N. Huckins, District Plant Chief, Rockford, Ill.

has been ill at her home for some time past, is improving.

Kathryn Jacoby entertained the toll girls and their friends at a valentine party on the evening of February 14th. Twenty-five couples attended. The evening was pleasantly spent in games and music. At a late hour a four-course luncheon was served.

Essie Hall, toll operator, entertained the members of the Fiducia Club on the evening of February 2nd. Guests of the club were: Eva Fox, traffic chief; Elizabeth May, district instructor, and Lillie Hall, service observer. Delicious refreshments were served.

Hattie Graf, toll operator, is ill with appendicitis, at St. John's Hospital.

Anna Eck, stenographer in the office of N. R. Harrison, district traffic chief, has been ill for the past five weeks with typhoid fever and is slowly improving.

Sadie Hunter has accepted the position of pay station attendant in the central office at Springfield.

Quincy District

Traffic Chief Dunham recently entertained the ladies of the commercial department at a theater party to see "The Runaways." The play was hugely enjoyed, especially by the traffic chief, who slept beautifully throughout the show, and later revived the young ladies by treating them to "Coca Cola."

Gertie Coans has been appointed senior supervisor to succeed Clara Walsh, who has taken the position of information operator.

Helen Hilgenbrink has been appointed traffic clerk, having been transferred from the commercial department. Millie Neuer has succeeded Miss Hilgenbrink as clerk in the commercial department.

Ruth Anderson, a local operator, resigned to accept a position at the Hotel Quincy as private branch exchange operator.

Lillie Sweeney is recovering from a serious operation for appendicitis.

Catherine Nelson, a local operator, is back on duty again after one month's absence caused by an operation for gonorrhea.

Roy Potts has accepted a position as collector to succeed Clarence Walker, who left for Chicago.

Early Sunday morning, February 22nd, a light rainfall began, the temperature dropped rapidly and by noon everything was covered with ice. At about 4:30 in the afternoon commenced a heavy snow; this continued all night and all day on the twenty-third, which ended up in a fierce blizzard. All the streets were blocked with drifts of snow four or five feet deep and no street cars ran for two days. The traffic department had a difficult task getting enough operators to the exchange to give service during those days, and the traffic was especially heavy; but with the help of taxicabs Mr. Dunham, the traffic chief, succeeded in keeping the service up and giving perfect satisfaction to the subscribers. All the A. T. & T. Company circuits and Central Union were out of order with the exception of an old grounded circuit which had been neglected for years, but it worked right along without a stop.

Ohio Division

B. T. Calaway, Correspondent, Columbus

P. B. X. Development in Columbus

The following private branch exchange contracts were taken during January and February in Columbus:

Trunks.	Station.
Watson, Stouffer, Davis and Gearhart, Attorneys, No. 2	
Int. System.....	1 7
Snyder Chaffee Company, Manufacturing Confectioners, No. 2 Board.....	1 8
Ohio State Board of Health....	2 7*
Brasher Lumber Co.....	2 7*
Civil Service Commission of Ohio.....	1 9
State Liquor Licensing Board..	1 7
Seldenfield-Hammond Coal Co. No. 2.....	1 5

*Two extra listings.

Mr. Reed Again Heads Club

A year ago The Athletic Club of Columbus, then a brand new proposition with a small number of members and nothing but plans and visions of the future, chose to elect as its president, E. A. Reed, the general manager of the Central Union Telephone Company for Ohio. The past year has seen this club grow until to-day it has reached its limit of 1,000 resident members with a waiting list; has some 400 non-resident members; is possessed of very fine temporary club quarters which are being operated at a profit, has purchased and paid for one of the finest sites for a clubhouse in the center of the city and has practically completed the financing of a clubhouse which will cost one-half million dollars. As an evidence of the club's appreciation of Mr. Reed's services and a recognition of the large part that those services have played in the success of the club thus far Mr. Reed was unanimously and enthusiastically re-elected to the presidency for the coming year.

Collections at Columbus

William Stukey, supervisor of collections of the Columbus exchange, deserves great credit for the results obtained during the past year, in spite of the fact that the flood losses seriously affected conditions in the city; that for over a month ten per cent. of the company's stations were out of service and that for two months in succession the denial of service for non-payment was suspended. The lowest percentage of collections in any one month was 90.3 and the average for the entire year was 93.5. It is significant that simultaneously with these good collection results a consistent gain in stations was made. The company recovered all of the stations lost by reason of the flood and attained a total net gain of about 2,000 stations for the year. At the same time, exclusive of adjustments made for non-service during restoration of flood damage, the allowance for 1913 actually showed a decrease over 1912, although the charges increased heavily.

Columbus District

The Green-Joyce Department Store has signed a contract for the installation of interurban long-distance service at stated hours each day. This will give the people in the cities and towns within a radius of thirty-

TELEPHONE WIRES

ENAMEL, SILK, COTTON, **Magnet Wire**

PROMPT DELIVERIES

ROME WIRE COMPANY

ROME, N. Y.



LINE OF EATON, OHIO, TELEPHONE COMPANY AFTER FEBRUARY SLEET STORM.

five or forty miles of Columbus as ready access to the Green-Joyce retail stores as any citizen of Columbus and as free of cost. It will promote sales and afford a great convenience to patrons. Their present switchboard is to be replaced with a two-position board and a large number of additional trunks and stations installed which will give adequate terminal facilities. Under the guidance of Iowa Smith, chief commercial agent, the store is installing a complete up-to-date system of telephone shopping and selling.

Another indication of the metropolitan growth of Columbus is the increase in number of modern office buildings exclusively devoted to and fitted up for the use of doctors

and dentists. The Central Union Telephone Company has devised an ideal form of service for these professional buildings and has recently taken contracts for two installations, one for Dr. J. M. Rector, ten-position, in his new office building, 289 East State street, and the other for Dr. Riebel, ten-position, for his office building, 15 West Goodale street. This will make a total of four of these installations in service in Columbus. The service furnished and equipment used is the following: A contract is taken separately with each tenant for individual business service. The doctor owning the building contracts in addition to his own line for an extension telephone and a special auxiliary answering equipment to be located on the desk of the attendant in the reception room. Each tenant signs a request to have his private telephone line connected through this answering equipment. This equipment consists of a line and supervising signal, an answering key, a hold key and an annunciator button for each line, the extension telephone being bridged across all answering keys. It is thus possible without permitting intercommunication for the attendant to answer the calls for any or all of the doctors' lines and the annunciator serves to signal the doctor if it is necessary for him to answer.

The Junior Boys' Class of the Main Y. M. C. A. visited the Main exchange Saturday afternoon, January 17th. About seventy-five were in attendance and expressed themselves as being highly pleased with their treatment and as having learned much regarding operating and plant—these being the two departments to which their visit was confined.

The Columbus district plant men are feeling happy over the fact that this section escaped the violent storm of January 31st, which devastated this company's lines in the northern and western parts of the state. On Sunday, February 1st, it was necessary for Plant Superintendent Cherry, in communicating with Toledo, to route via Cincinnati, Louisville, Chicago, Grand Rapids and Detroit. This district, however, suffered no appreciable damage whatever from the storm.

Thomas Croy, line foreman at Columbus, broke his hip in a fall while bowling in a league game at the "Old Lanmark" alleys Friday evening, January 30th. The physician in attendance stated that Mr. Croy will be laid up for several months. The sympathy of all is extended to Mr. Croy and family. The Columbus telephone directories were



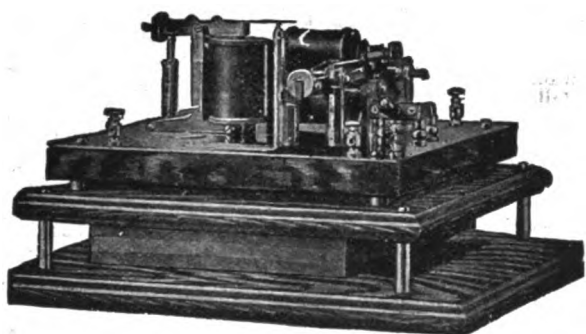
LINE OF EATON, OHIO, TELEPHONE COMPANY, AFTER FEBRUARY SLEET STORM.

received the first week in March for distribution. The number issued was 26,000.

The gain in stations for January was 121 and for February 105, making a total of 22,024 stations in Columbus March 1, 1914.

Mayme Dill has recovered from a slight operation and returned to her work in the contract department much improved in health.

Leah Rosenfeld of Youngstown, Ohio, was a visitor at the Columbus exchange during February, calling on former associates. Forecasting at Columbus for the next two,



THE STANDARD POLE CHANGER

has been making good for seventeen years. Affords the cheapest power—about 25c for each 100 subscribers. Very simple in construction—practically indestructible—no parts to wear out.

WARNER ELECTRIC CO., MUNCIE, IND.

17,000 now in use.

No current drawn from dry cells except when ringing subscribers.

You run no risk—every pole changer guaranteed. The standard is one of many designs we manufacture. Tell us number of subscribers you have and we will send you details of the particular pole changer best adapted to your needs.

TRADE MARK No. 226 Turner HOT BLAST Kerosene Torch



This Kerosene Torch is not only unequalled but is far in advance of any other kerosene torch on the market. A powerful blue flame is produced several hundred degrees hotter than is possible with gasoline in any single jet torch. The increasing cost of gasoline and its forbidden use by insurance rules for inside use in some localities is rapidly popularizing this torch.

Especially Recommended to Telephone Companies.

No. 226 \$4.50 Each No.
POLISHED BRASS
Jobbers Sell at
Factory Prices

THE TURNER BRASS WORKS

Dept. K. Sycamore, Ill., U. S. A.

RELIABLE COPPER —AND— IRON WIRE CONNECTORS

For Telephone and Electric Wires

All sizes from No. 0000 to No. 19 gauge
Split and Combination sizes

Write for Samples and Prices

RELIABLE ELECTRIC CO., CHICAGO



five and ten-year periods has been completed and the outlook is very good for station gain in all sections.

Manager Cole, of Linden exchange, reports a very good outlook for business as building operations are picking up with the dawn of spring. The paving of Cleveland avenue from Columbus to Linden and the improved car service have had a very good effect on this suburb.

Otterbein University is now reached by two lines and Manager Parrett, of Westerville, hopes to install a private exchange for the university before long.

Manager Willing, of Grove City, reports a gradual increase in business. The newly organized Chamber of Commerce has started to push this thriving village to the front.

Manager Rice, of Hilliard, reports her exchange in the usual good condition and the prospects for station gain good.

Manager Miller is fostering the infant Canal Winchester exchange and with the high standard of service he has set, promises to bring his charge to the front.

Marguerite McTeague of the district plant accountant's office is recovering from an operation performed at Mt. Carmel Hospital the forepart of February and she expects to resume her duties by April.

With the addition of the Akron and Toledo Districts the commercial accounting center at Columbus will care for the accounts of the entire state and will have a force of about 150. This additional force added to the number employed in all departments of the Central Union Telephone Company at Columbus, Ohio, makes this company compare favorably with any of the local industries in size of pay rolls and the local merchants appreciate this fact.

The operators of the Hilltop office entertained with a "co-ed" party in their rest room Wednesday evening, February 11th. The evening was spent in music and dancing after which a supper was served.

The operators of the Hilltop office entertained with a dance Tuesday evening, February 24th. A very large crowd was in attendance and the affair was much enjoyed.

On February 2nd the Tashmoo girls of the North office entertained with a dance at the High-Seventh Armory. Two hundred and fifty couples attended and the proceeds were invested in a piano for the rest room. The girls intend giving a series of dances, the next one to be held at the High-Seventh Armory on April 27th.

Rose Fuchs, supervisor at North office, re-



DANCING PARTY OF TELEPHONE EMPLOYEES AT SANDUSKY, OHIO.

cently resigned to take up similar duties in Cincinnati. Miss Fuchs has the enviable record of not being absent a day during the four years she was in North office.

Wedding bells caused the resignation of Elsie Moore, operator in North office, last month.

On February 21st the North girls gave a "doll party" in the rest room of the office. The evening was spent in playing "kid" games, music and dancing. Light refreshments were served after all had "like little, obedient children" stood up in the corner and had their pictures taken.

Dayton District

Ruth Maxwell, assistant chief operator for the Sidney Telephone Company, Sidney, Ohio, was married January 16th to R. N. Dinsmore, civil engineer. They expect to reside in South America. Miss Maxwell has been in the employ of the Sidney Company for the past eight years and leaves with the well wishes of her co-workers.

A recent sleet storm in this section of the

state wrought considerable havoc with property of the telephone companies. The accompanying photographs show damage done to the property of the Eaton Telephone Company, operating in Preble and Dark counties. The broken pole leaning on the house caused considerable alarm but did little damage to the property. Ice on the wires varied from an inch to an inch and a half in diameter.

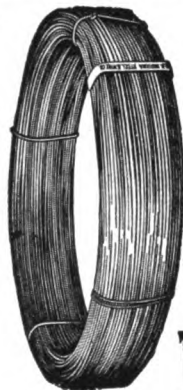
Toledo District

Pearl Taylor, supervisor at the Forest office, Toledo, resigned March 9th to be married to Edward Bobzean.

On the evening of February 17th the employees of the Sandusky, Ohio, exchange gave a private dancing party in Heslet's Hall. Each employee was allowed to bring an extra couple, and at 11:30 when a flashlight picture was taken, there were 158 people in the hall. Dancing started at 8:30 and continued until 12:30. Ices were served in the dining room adjoining the hall. The fact that forty-one out of forty-seven employees of the

TELEPHONE WIRE

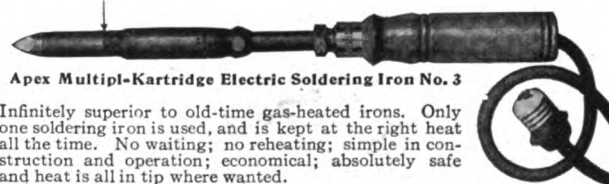
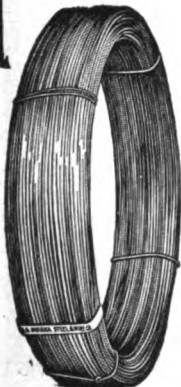
We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.



Write for FREE SAMPLE
Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



The "Dreadnaught" Brazed Steel Gasoline Blow Torch

Made to deliver the Hottest Fire and to withstand the Hardest Knocks and has made good and stood the service test of the Telephone Companies.
No soft Solder to melt or crack.
Large Pump, quick starting Burner.
Convenient Filler service.

Let us quote you.

The P. Wall Mfg. Supply Co.
PITTSBURGH, PENNA.



EDDY OFFICE EMPLOYEES AND THEIR FRIENDS AT WINDERMERE HALL, FEBRUARY 24TH.

Sandusky exchange were present indicates the interest taken in these social affairs. Those absent included the three night operators. Among the out-of-town guests were Anna Egle, Hazel Brady, Nellie Cole and Mary Eggert from Norwalk. The music was furnished by Mrs. Jeannette Hauschultz-Gilbert and Mr. Bauman.

Hazel Beckwith, supervisor at the Main office, Toledo, has been transferred to the Forest office as supervisor.

Gustia Bolander, supervisor at the Main office, Toledo, was married on February 26th to John Nissen.

Mary Maher, former evening chief operator at Columbus Main, has been transferred to Toledo Main as day chief operator.

Pansy Rittenour has taken the position of temporary cashier at Bowling Green, Ohio, during the absence of Bertha Norris, who is ill.

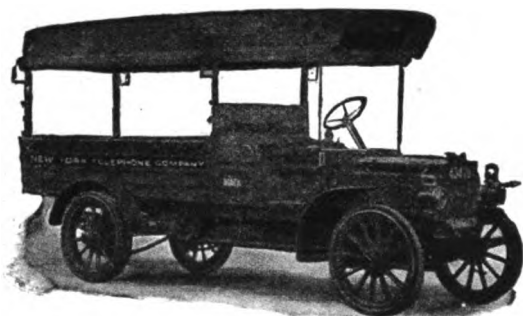
Word has just been received of the death in Cleveland of Nellie Watkins, formerly teller at the Toledo exchange.

Albert Fehr, lineman at Sandusky, has resigned to accept a position with the Sandusky Telephone Company.

John Day, employed by the La Rue Telephone Company, La Rue, Ohio, met with a painful accident while repairing a line one-quarter mile south of Marselles. Mr. Day was up on a pole without climbers, holding to the pole with one hand and repairing a wire with the other, when the wire rebound-

ed and was buried in his cheek below the right eye. A gash to the bone, two inches long, was inflicted towards the ear. After the accident the young man was compelled to hang to the pole with the wire imbedded in his cheek until another lineman came to his rescue and removed the wire. Mr. Day then went to the office of Dr. E. S. Jones in Marselles, where the injury was dressed.

Service has been fully restored by the Crescent Telephone Company, Weston; The Rising Sun Bell Telephone Company, Rising Sun; The Haskins Bell Telephone Company, Haskins, and The Tiffin Consolidated Telephone Company, Tiffin, whose exchanges were badly damaged by the January sleet storm.



ONE HUNDRED & TWENTY

International Motor Co. Trucks of various sizes in the service of the Associated Bell Telephone Companies.

A total of a steady stream of orders for Supply Wagons, Post Hole Diggers, and Powerful Winch Trucks for aerial construction and underground cable placing.

MACK



SAURER

INTERNATIONAL MOTOR COMPANY

West End Ave. and 64th Street

NEW YORK

Sebco Enameled Bridle Rings

for carrying and distributing wires—made of the finest bessemer steel covered with several coats of absolutely smooth glass enamel which insures perfect insulation with no chafing of the wires.

The enamel is indestructible and will last forever.

A number of wires may easily be placed in the ring and as easily removed but the shape of the ring makes it impossible for the wires to come loose through any strain or action of the weather. The rings have a wood screw thread for use in fastening to Anchors.

We make all kinds of jumper and special rings for carrying and distributing wires on brick and stone construction.

Star Expansion Bolt Co.

147-149 Cedar Street, New York



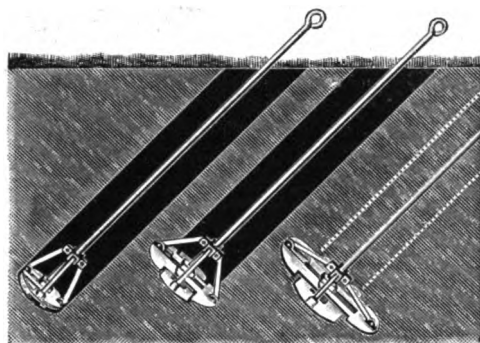
Perfect Insulation

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

THE EVERSTICK ANCHOR CO.

ST. LOUIS, MO.



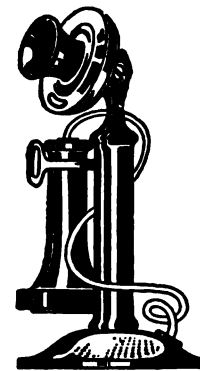
1 2 3

Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.



Quick
shipment
is
assured

when you buy



Western Electric TELEPHONE APPARATUS and SUPPLIES

Twenty-nine distributing houses with large ready-to-ship stocks—and those houses located where they will do the most good—assure reliable service.

We can give the telephone companies in your territory quick shipments on their orders—over night on emergency orders.

Our service facilities are at their disposal—tell them so. They will be glad to know it.

Western Electric Company

Cleveland Division.

W. K. Lawrence, Correspondent.

With Commercial Agents

During the past month I. W. McKee was successful in securing the following contracts for private branch exchanges: The A. & W. Electric Sign Company, West Third and Prospect, a No. 4 switchboard, one trunk line and six stations; the Cleveland Folding Machine Company, Euclid Penn building, a No. 4 switchboard, one trunk line and seven stations; the English Woolen Mills Company, 232 Superior avenue, N. E., a No. 4 switchboard, two trunk lines and eleven stations; Ernest McGeorge, 854 Leader-News building, a No. 2 switchboard, one trunk line and six stations; Arthur G. McKee, 1301 Rockefeller building, a No. 2 switchboard, one trunk line and six stations.

G. V. Shaw had a very good record last month, having secured the following contracts for private branch exchanges: The Oliver Typewriter Company, 946 Prospect avenue, a No. 2 switchboard, two trunk lines and six stations; the Royal Typewriter Company, 620 Prospect avenue, a No. 2 switchboard, one trunk line and six stations; the Chapman Company, 575 Broadway avenue, a No. 2 switchboard, two trunk lines and seven stations; the M. & M. Company, 500 Prospect avenue, a No. 4 switchboard, two trunk lines and seven stations.

Through the efforts of J. L. Burket, a contract for a private branch exchange was secured from the W. W. Sly Manufacturing Company, 4700 Train avenue. The equipment will consist of a cordless switchboard, one trunk line and seven stations.

A contract for a private branch exchange, which will consist of a No. 4 switchboard, two trunk lines and six stations, was secured by J. F. Barkhauer from the Republic Mausoleum Company, 426 Citizens building.

Telephone Baseball Club Dance

On Tuesday evening, February 24th, a dance was held at the Chamber of Commerce by the baseball clubs of the Cleveland Telephone Company. Fully 500 attended and participated in the old and modern dances. Refreshments were served and everyone

seemed to thoroughly enjoy himself. The attendance at this dance was very encouraging to the baseball clubs and now that everyone realizes that he is helping to put teams in the various city leagues this coming season, the dance, which is to be held at the same place on May 5th, will have a larger attendance.

Commercial Girls Entertained

Helen Meermans entertained about fifteen girls of the commercial department at her home on Valentine eve. A very pleasant evening was passed in playing games, singing and music. A luncheon was served and the table was tastily decorated in hearts and valentines.

Eddy Office Dance

"On with the dance, no sleep 'till morn," says Lord Byron, in his poem describing the eve before Waterloo; but the Eddy office girls kept in mind that there would be calls to answer in the "morn" so they went "on with the dance" until 11:30 p. m. only, and thus avoided meeting Waterloo.

The aforesaid dance was given February 24th at Windermere Hall by the Adelphean Society, which was organized to "recall" as much money as possible, from their friends, to be used toward purchasing a piano.

The Eddy operators have desired for some time to have a "keyboard" as well as a "switchboard," and the piano is now standing in the recreation room of the Eddy office, which is proof positive of the success of the first dancing party.

Margaret Johnson, nine-year-old daughter of W. F. Johnson, chief clerk of the traffic department, gave an artistic exhibition of toe dancing during the course of the evening, and she and Wenonah Johnson, her four-year-old sister, danced the "Boston" in a manner both surprising and pleasing.

Washington's Birthday Party

If the chief of the "Cigar Store Indians" had taken a peep into the dining room at Main office, Cleveland, on Friday evening, February 20th, the stolen hatchets of his "tribe" would have been recovered. The occasion of the demonstration was a long-to-be-remembered George Washington's birth-



EAST OFFICE GIRLS WHO TOOK FIRST PRIZE AT CLEVELAND, WASHINGTON'S BIRTHDAY CELEBRATION.

day party, which was attended by nearly 300 Cleveland telephone employees. In decorating for the affair festoons of bunting and American flags were very much in evidence. The gaily attired company, in costumes representing everything from colonial to present day, were cordially received by Che(e)r-y-faced Martha Washingtons, under the leadership of Miss Spencer, social secretary,

and upon entering the dining room the guests were given numbered red hatchets by the doorkeeper, who whispered confidentially to each one. "Save your hatchets; the lucky number will win you a big box of candy."

During the evening there appeared on the stage erected for that purpose George and Martha Washington dancing a stately minuet, song and dance artists, wooden shoe experts, black-faced comedians, and a number of other humorous hits followed in rapid succession. The proverbial cherry tree was also on hand, and George with his ax at its side. This, of course, was a miniature, which was raffled off later in the evening. Even the cookies served with coffee and sandwiches were in form of hatchets. Dancing ended the program.

Indiana Division

D. H. Whitham, Correspondent

Division Offices

All employees are pleased over the showing disclosed by the statistical reports for 1913. The revenue per station increased and the expenses decreased in comparison with 1911 and 1912.

Work on estimates which was temporarily suspended has been authorized to proceed and the construction forces are gradually being put back to normal condition.

General Manager J. W. Stickney and Traffic Superintendent J. L. Wayne have been interested in the organization of the Indiana Association of the Massachusetts Institute of Technology. Mr. Wayne was elected president. Immediately after the organization was formed Mr. Wayne and Mr. Stickney attended the annual meeting of the Associated



MAIN OFFICE OPERATORS IN MINUET AT CLEVELAND.
Washington's Birthday Celebration.

Technology Clubs in Chicago, February 20th and 21st.

The Indiana correspondent has received a neat folder from Atlas State Bank, of Union

City, showing as cashier Bruce F. Beatty, former Central Union manager. Mr. Beatty was in the Division offices for some time and was manager at Union City for several years. He left the telephone service at the time of the consolidation in Union City.

Gustavus Green, chief clerk to the general plant superintendent of the Western Union Telegraph Company in New York, visited old friends in Indianapolis. Mr. Green is a former telephone employee.

The Indiana Bell Telephone Society met at the usual time at the University Club, Indianapolis, on Monday evening, March 9th. After an informal dinner the evening was devoted to a discussion of the question of "Government Ownership of Public Utilities," and more particularly the telephone and telegraph systems of the country. Mr. Wayne read a paper on the subject to open the subject. The discussions which followed showed that considerable thought had been given. A letter was received from L. N. Whitney, former general manager, expressing his regret that he could not meet with the boys and extending to them his best wishes for the society.

E. J. Farrell, who for the past two years has been associated with the division and local offices at Indianapolis, has been transferred to Chicago as assistant treasurer of the Central Union.

W. G. Lyle, chief supervisor in the traffic superintendent's office, is also acting as chief clerk to the traffic superintendent. H. B. Coldwell, who has been acting as chief clerk to the district plant chief, has again assumed his special work in the traffic superintendent's office, and D. J. Birmingham is now acting as chief clerk in the district office.

George Holmes, Sr., for many years directory agent and superintendent of the printing plant for the Central Union Telephone Company, has resigned from the telephone work and gone into the printing business in Indianapolis. He is a frequent visitor to headquarters.



CLEVELAND OPERATORS IN WASHINGTON'S BIRTHDAY CELEBRATION.

NATIONAL

Double Tube Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO



GROUP PICTURE TAKEN IN CLEVELAND MAIN OFFICE DINING ROOM DURING WASHINGTON'S BIRTHDAY CELEBRATION, FEBRUARY 20TH.

A new broker's lease has recently been made with the subscribers at Columbus, Indianapolis, Terre Haute, Rushville, Crawfordsville, Lafayette, Elwood, Kokomo, Logansport, Knox and Plymouth. This is one of the largest leased circuit contracts which has been made in recent years in Indiana.

United Press P. N. T. service has recently been installed at Rushville, Bloomington and Warsaw.

Henry Mowwe, for many years connected with the plant department in Indiana, now on a temporary leave of absence, has suffered a stroke of paralysis. However, he is gradually improving and it is hoped that he will soon be out again.

Perry M. Daniels had just recovered from an illness which kept him off duty for some time, when he took smallpox and is again laid up.

C. N. Sears has been transferred from the plant department at Terre Haute to the office of the construction superintendent at Indianapolis.

H. W. Shaw and H. S. Bowsher of the construction department field force have been assigned duties in the office of the construction superintendent.

A surprise party was recently given for Irene Riley of the construction superintendent's office at her residence on Parkway boulevard, the joyous occasion being the celebration of her eighteenth birthday. The event was one of music and flowers and a general good time.

Mrs. Mary Ferguson of the construction superintendent's office entertained the musical club of which she is president at her home on South Arsenal avenue on Sunday

evening, March 15th. The guest of honor was Madame Pavlowa, the famous Russian dancer, who is also a musician of rare ability.

Roy Daniels, special foreman of the construction department, had a very unpleasant experience recently in a sleeping car between Indianapolis and French Lick. Upon retiring to his berth he left his shoes in the aisle, after requesting the porter to see that they received a "fresh coat of paint." Some of his friends happened to be on the train, and overhearing this remark, proceeded to give his shoes a real coat of paint. Consequently when Mr. Daniels arose to don his wearing apparel he found that his shoes had been given a lovely coat of "standard green," and as the snow was pretty deep in that territory and there was no other footwear available, he was obliged to wear his painted shoes for a number of hours until he could supply himself with another pair.

C. H. Lee of the construction superintendent's office is busily engaged in preparing pole maps of the city of Indianapolis, showing the joint poles which he has recently checked up. Mr. Lee says that he has made so many little black dots on his set of maps that he now dreams of them at night.

Central District

A new repeater table, to take care of the large number of leased wires, has been installed at Indianapolis.

Margaret Rooney, service observer at Indianapolis, has been on the sick list for some time, but is expected to be out soon.

The first and second divisions of the Woodruff office are working for a banner, which is awarded daily to the division giving the best service. This has brought about a great amount of enthusiasm and has been the means of giving more satisfactory service.

Octavia Stephens, pay station supervisor, held a series of meetings with her girls during the afternoons of March 11th and 12th at the Main office building. During the first half of the meetings, which were devoted to business pertaining to the work of the pay station attendants, Mr. Green, the district traffic chief, gave a very interesting and instructive talk. When the business hour was over the girls were conducted to the dining room of the Main building on the eighth floor, where dinner was served. All of the girls expressed themselves as having spent a most delightful as well as an instructive afternoon.

Ruth Becker, Belmont Operator, announces her engagement to Thomas Whitehead. The marriage will take place in April.

Lella Shelley, a former Belmont operator, entertained the girls of the Belmont Office at her home in February.

Miss Smith, observer for the traffic department of the Terre Haute office, spent a couple of days visiting the Indianapolis office. Miss Smith was guest of honor at a luncheon and theater party during her visit.

Inez Johnson has been transferred to the Belmont office as chief operator, taking the place of Mrs. Nora Jones, who has been transferred to the Woodruff office as chief operator, taking the place of Anna Dugan. Miss Dugan is ill at St. Vincent's Hospital.



Door Open

The "French" Folding Door Telephone Booth

(Patent Pending)

DOOR OPERATION: One of the distinctive advantages of the FOLDING DOOR is that it can be both closed and opened by pulling on the handle. This feature, which is an important one from the booth users' standpoint, is possible only with this type of door.

Write for booklet describing the advantage of the "Folding Door" Booth

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

DISTRIBUTORS:

Western Electric Company

Houses in all principal cities



Door Closed

having undergone an operation for appendicitis.

To Anna Welch, training school instructor, is due the movement on foot to establish a physical culture class for the benefit of the operators. Miss Welch has given her time and attention to this great work, and the operators from all of the offices are growing more and more enthusiastic over the pleasure that this exercise gives them. The classes are held in the Roof Garden at the Main office building on Tuesday and Friday nights of each week. The interest shown is quite flattering to Miss Welch, who is heart and soul in this new social work. In order to give her classes the benefit of all the new steps and exercises, Miss Welch is also taking instruction at one of the leading gymnasiums in the city and hopes to have her dances and drills equal to any class shown in the city. The social spirit is also one of the pleasing factors, as this is an opportunity for the operators, supervisors and chief operators to meet on equal ground and thoroughly enjoy the acquaintances made.

The first of the season's "hikes" was given by the Physical Culture Class, Sunday, March 15th. Eight of the class members, with Miss Welch as guide, boarded an Irvington street car at nine o'clock in the morning and rode to the end of the line, where the tramp to the country began. By the time three miles of good country road were covered, they came within sight of Page's place, whose reputation for chicken dinners is unsurpassed. The prospects for a good dinner were too alluring to admit of further progress in the tramp. So arrangements were eagerly made for dinner, which was soon served to the intense satisfaction of the hungry girls. Before starting back on the homeward trip, kodaks were pressed in to service and several attractive pictures were taken. The party then proceeded, homeward-bound, arriving there about three o'clock—a tired but happy bunch of girls.

Northern District

Thursday evening, March 5th, about ten telephone operators and invited friends enjoyed a hayrack ride to the home of Mr. and Mrs. McElwee, three miles south of Peru. The evening was spent in singing and games, after which the hostess served luncheon. The party returned home at a late hour.



INDIANAPOLIS' PHYSICAL CULTURE CLASS READY FOR OUTING.

Ruth Harn delightfully entertained a number of her friends at her home on West Fifth street, Peru, March 6th. The evening spent in music and games was greatly enjoyed.

Connecting arrangements have been made with the North Vernon Telephone Company, at North Vernon, for use of Central Union toll lines.

Employees of the Indiana General Service Company and the Central Union Telephone Company at Elwood have organized a Roller Skating Club at Elwood which is proving very entertaining to members. For the information of those who might not have the courage to follow out their desire to try the rollers, Manager Porter gives his experience. It had been fifteen years since he had been on ice skates, which he considers is an asset in mastering the rollers. The first evening he managed, after being assisted a few times around, to keep them under control for the evening without making any artistic bows to those who preferred to learn looking on. The second evening the club had E. G. Halstead, district plant chief, and A. W. Mann, who joined the active members. The former did real well and assisted several of the "fair ones" in mastering the art. Mr. Mann was content to be responsible only for himself.

C. C. Hollis has been checked in as man-

ager at Muncie, succeeding E. Springer, who will take a six months' leave of absence and a much needed rest. Mr. Springer is one of the oldest managers in the service, having been manager at Muncie for twenty-seven years. He has seen that exchange grow from a few hundred subscribers to the present large combined exchange.

The Western Electric Company recently arranged with the Elkhart Home Telephone Company for the installation of a complete new Central Office Equipment. H. E. Barnard of the Western Electric negotiated the sale.

Since the consolidation of the two plants at Elwood, Manager Porter has arranged to place all of the subscribers at Elwood on the standard rates in effect after the consolidation and the exchange will now be run as a single exchange in every way and with prospects for a successful business.

Mr. Dausman, Morse operator at Culver, has been advanced to the position of Morse operator at Auburn. Incidentally Mr. Dausman used to play around Mr. Van Fleet's office in short dresses when he was a baby, and it is a good bit like old times to have him back to the office at this time as a Morse operator.

Frances Walser has succeeded Mr. Dausman at Culver, having been transferred from the joint 10-A office at Tell City, which is in the territory of the Cumberland company.

A "Bob" party which later was changed to a truck party, on account of the Peru weather, was enjoyed by about ten couples Tuesday evening, February 17th. The party left about 7:30. They drove to Mexico, about six miles from Peru, and returned home at 11 o'clock. On returning all went to the Main restaurant where a luncheon was served.

Nell Holland entertained a number of her friends at a "stag party" Wednesday evening, February 18th, at her home in Peru. The evening was spent in singing, games and contests and a lunch was served.

Tillie Grossman entertained a number of her friends at her home in Peru, February 18th, in honor of her twentieth birthday. Games and music were enjoyed, after which a three-course luncheon was served. During the evening several flash light pictures were taken. The guests departed at a late hour, wishing Miss Grossman many more happy birthdays.

The T. B. B. Club of Peru met at the home of Miss McAuley, Thursday evening, February



Thirty years experience in tool manufacturing has taught us how *not* to make tools as well as *how* to make them.

Were it necessary only to make tools to withstand ordinary usage we would have no tool problems—nor would you.

That's not the kind of tools we make. There's thirty years of experience and reputation back of our tools. Why don't you get the benefit of it?

We sell more outside construction tools than all our competitors put together—**THINK THAT OVER.** You can get them at your regular jobbers if you specify them—but be sure and specify them as the jobbers don't make as much on our tools as they do on some others. See the point?

We supply the Western Electric Co. with practically our complete line. You can order from them.

OSHKOSH MFG. CO.
Oshkosh, Wis.

HUSSEY-BINNS SHOVEL CO.

PITTSBURGH, PA.

INGOT PROCESS



THE ONLY
ONE-PIECE
CRUCIBLE
CAST STEEL
PLAIN BACK
SHOVEL
MADE



EXTRA
STRONG
SOCKET
AND STRAPS
WITHOUT
EXCESSIVE
WEIGHT

Thick Centre Blades
ARE THE MOST DURABLE

12th. Games, music and contests were enjoyed. Miss Holland and Miss Harn won the prizes. A luncheon was served.

Southern District

Clara Williamson, toll supervisor at Vincennes, has resigned to be married.

Hazel Carter, toll supervisor at Vincennes, has resigned and returned to her home in Logansport, Ind.

Mollie Chambers, local operator at Vincennes, has resigned and is leaving for Chicago where she will take a position with the Western Electric Company.

Alice Strickland and Gertrude Mueller, toll operators at Vincennes, have been promoted to toll supervisors.

The Spencer manager recently treated the commercial and traffic employees to a sleigh ride.

Work on the central office at Crawfordsville has been started and will be pushed rapidly.

Golda Smith has been appointed chief operator at Vincennes, succeeding Marie Ostheimer. Miss Ostheimer has been appointed service observer at Indianapolis.

H. S. Post, repairman at Terre Haute, is suffering with blood poisoning of the right hand, caused by a splinter which penetrated his hand while he was installing a farmer's telephone.

Preliminary work has been started by the engineering department at Terre Haute toward placing lines underground within the fire limits as ordered by the city council in an ordinance passed last December.

Michigan Division

David H. Dodge, Correspondent,
Detroit

P. B. X. Development in Detroit

Among the private branch exchanges and additional equipment ordered in Detroit during the month of February, 1914, were the following:

	Trunks.	Stations.
Loveland Company, auto room (new)	2	6
Baird, real estate (new)	2	6
G. M. West & Co. (change from inter-com. set with 2 trunks and 3 terminals to)	2	6
J. Johnson & Co., real estate (new)	2	6
Benham Mfg. Co., auto body (new)	2	6
W. P. Bonbright Co., lawyers (new)	2	6
A. J. Detloff Co. (change from inter-com. set with 2 trunks and 5 terminals to)	2	7
Michigan Workmen's Inc. Co. (new)	2	6
M. Fraser, carbon paper (new)	2	5
American Rapid Cyaniding (new)	1	5

Of the total of eight new private branch exchange contracts obtained during February, six were secured by Floyd H. Lockwood, two by Dare S. Burke. The new contracts and the "changes" supplied a total of 59 stations for Detroit during February.

Telephone Society of Michigan

The telephone lecture, "The Marvels of the Telephone," was shown to the members of the Society at its February meeting on the 25th. C. S. Slack, manager of the Detroit district, read the lecture. This lecture consists of seventy slides, for each of which an explanatory paragraph is provided for the lecturer. It is prepared by the Publicity Department of the central group

of Bell Telephone Companies, and is intended for use before almost any audience. They should interest business, professional and working men alike, as well as hold the attention of women and upper-grade school children. The lecture can be used effectively before associations, clubs, churches, lodges and student bodies, either as the feature of, or the basis for, an entertainment.

There are actually two separate lectures, each with its own set of slides, one for places where there are common-battery exchanges, and the other to illustrate features in magneto exchanges. The common-battery lecture was given at the Society meeting. The local pictures specially interested the members, of course, and Detroit plant men were pleased to note that one of the slides to be used generally was taken from a photograph of a man-hole showing the cutting in of the old Home Telephone Company's field subscribers into our Ridge office.

Nominations for officers to be elected April 1, 1914, were also made. For president: Martin Ewald, plant department, and C. S. Slack, commercial, were named; for vice president, George Salomonson; for treasurer, E. H. Eyre, and for secretary, C. E. Culver were both nominated. Rodney Weeks was named for commercial governor.

Main and Cherry Girls Dance

The annual dancing party given by the Main and Cherry girls of the Detroit exchange took place on February 17th at Strasburg's Dancing Academy. The affair was in the hands of a competent committee of which E. C. Laskey, traffic chief, was chairman. That the committee spared no pains was manifested in the attendance, about 300 couples participating in the affair.

The programs were very appropriate, and strictly carried out the feature note of a telephone party, some of the numbers being known as "Number, please?" "My Bell rang," and "I will ring them again," during which dances special music and the jingling of different toned bells were heard. Feature dances were introduced, such as the throwing of cut roses, candy, balloons, horns, etc., as the dancers whirled to the music of Lorenzen's orchestra. A beautiful full moon, rising in the sky, was supposed to illustrate Traffic Superintendent W. E. Spencer's smiling countenance. Another special feature, greatly appreciated by the guests, was a shower of kisses (not the soul-inspiring kind), but made of chocolate candy, with a gold star adorning each. These were designated as "Laskey's Stars," as a compliment to the traffic chief.

A number of vocal selections were rendered by various artists, which helped also to the entertainment. Claret punch was served all during the evening for the guests. Although all the former dancing parties that have been given by the employees in the Detroit exchange have been very popular in themselves, this one surpassed them all and was more than a great success, both socially and financially. The guests thoroughly enjoyed themselves and are very anxious for another party soon, which the committee is seriously considering.

The girls of Main and Cherry, through the BELL TELEPHONE NEWS, wish to thank Mr. Laskey for his earnest and hard work, as all of them feel that his management was the real source of the great success of the party; also the following floor committee for their earnest efforts: W. A. Spencer, M. C. Glass, C. J. Murray and W. E. Dawson. The proceeds of the party are being spent on several theater parties, two of which took place March 9th at the Detroit and Garrick opera houses, and one the afternoon of

March 11th at the Detroit Opera House. An after-lenten theater party is to be given later.

Pratt's Guide

Harry Pratt, of the commercial department, was working up at Oscoda and Au Sable after the big fire there some time ago, and employed a youth to guide him across the fire-swept sand dunes to the various subscribers whom he wished to induce to subscribe for service to a new exchange. Mr. Pratt paid this boy twenty-five cents an hour, and his next voucher contained the item "Guide, \$2.50." This was questioned at the Detroit office by Mr. Pratt's immediate superior who wanted to know why the blue blazes Harry Pratt didn't ask for a guide when he bought his railroad ticket, so he could have gotten it for nothing.

Detroit Operators' Sleighride

A. M. Parent, traffic chief, gave a sleigh-ride party for the girls of his office, East, West, Ridge, Cedar and Hickory, February 18. The weather was excellent, and the ride was thoroughly enjoyed. The parties created quite a sensation in the city of Detroit. Every girl had a horn, or bell, and one girl had a flute. Songs and solos of all kinds were rendered by different parties. D. Esler, wire chief at the East office, and his wife, and Miss Stevens, chief operator of the Walnut office, were invited guests in the East Office bob. After the ride all enjoyed the delicious luncheons which were served in the different offices. All the girls who were unable to go on the sleigh ride were given tickets for the Detroit Opera House, Monday, February 23rd, where "Madam President" was being played. The girls presented a card of thanks to Mr. Parent.

Two Little Keys

A. B. Bragdon, editor of the Monroe Record-Commercial, is a believer in reciprocal courtesy, especially over the telephone and with the telephone operators. After inspecting the new common-battery exchange at Monroe on March 8th, he was much pleased and shortly afterward handed the following original verse to the chief operator:

Remember, please,
That hearts (like locks) will open with ease,
With mighty little keys.
Remember, please,
That two of these
Are: "I thank you," and "If you please."

Detroit District

The plant department recently received orders to remove an obsolete sign, said to be located "At the southeast corner of the County Building."

Work on an estimate for cable extensions in the Walnut exchange district, amount \$10,429, was scheduled to begin April 1st.

An eight-position order table has been installed for the Detroit City Gas Company.

The Detroit long-distance girls celebrated Washington's birthday by giving a sleigh-ride party on the night of February 23rd. Two large bobs were used to accommodate the party, and with horns, bells, and a very jolly crowd, every one had a good time. After riding around the city for some time, they returned to the office where they enjoyed dancing and a big supper was served in the cafe. The tables were very prettily decorated with emblems appropriate to the day.

The Detroit long-distance girls also gave two theater parties. On the evening of

Sterling
Contractors' Barrow

Built to give and gives the kind of service which contractors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction.

It will hold over twice the load of ordinary pan-shaped barrows and will outlast two similar style barrows of any other make.

Among its desirable features are:

Channel steel legs — 16 gauge steel tray — angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.



Highest Grade of Inside and Outside TELEPHONE WIRE

☐ Made in accordance with the specifications of the Western Electric Company or those of any other customer.

The Electric Cable Company

17 Battery Place, New York

Boston
Philadelphia

Chicago
St. Louis

Cleveland
San Francisco

Works: Bridgeport, Conn.



DETROIT WEST OFFICE GIRLS WHO ENJOYED SLEIGHRIDE FEBRUARY 18TH.

February 18th a block of seats were reserved at the Temple Theater for the day girls, and after the performance the girls had supper at the Tuller Hotel.

On the evening of February 19th, the relief girls went to the Temple Theater and afterwards enjoyed a delicious supper at the Oriental Cafe. The theater parties were given from the proceeds derived from the dancing party and everybody reports having a very enjoyable evening.

Martha Woehl, desk supervisor at the Hemlock office, has resigned her position on account of ill health.

Louise Glessler, all night operator, Grand office, slipped when alighting from a car on her way to work, February 17th, and was thrown to the ground sustaining serious injuries. Latest reports show her improving as fast as can be expected.

Kathleen Bishop has just returned from a six-weeks' leave of absence, spent in Syracuse, N. Y. She reports a good rest, a good time, and a decided improvement in her health.

Neillie Turberville, Main office, surprised her friends and fellow employees by being quietly married, February 7th, to Harry Filinham.

Iola Reece, Main office, was married March 16th, to Fredrick Egner.

Harriet Comble, Hickory office, has been promoted from evening chief operator to assistant day chief operator. Emma Rupp, East office, has been promoted to evening chief operator, succeeding Miss Comble.

Selma Fisher, Hemlock office, has been promoted from operator to desk supervisor and Fanny Hershon from relief operator to relief A supervisor.

Anna Lozelle, B. supervisor, was transferred from the Grand to the Cadillac office as day desk supervisor.

Cherry A, first division, won the February contest. Anna Kastle, supervisor, and the girls are planning a theater party.

Main A, fourth division, won the February contest. Margaret Scharrett, supervisor, and Emma Von Coppenwall, senior operator, and the rest of the girls are thinking of having a party.

Cherry B, second division, won the contest. Amanda Ruff, supervisor, and the girls

haven't decided how to spend their prize money, but they think it will be a theater party.

The Hemlock office gave a theater party at the Temple Theater. It was attended by thirty-five day operators, supervisors, clerk, and chief operator, and was chaperoned by Mrs. Bernhardt, one of the matrons.

On the evening of February 28th, a party made up of the supervisors, clerk and chief operator of the Hemlock office enjoyed "The Bird of Paradise" at the Garrick Theater.

Eastern District

The Detroit-Monroe phantom circuits have been completed.

The work of combining the Michigan State and Wayne County Telephone Company exchanges at Plymouth was completed February 19th. All duplicate plant has been retired.

Work covering retirement of duplicate plant at Ann Arbor was completed February 28th. The estimate for new aerial cable at that point was also completed on the same date.

Grand Rapids District

The following promotions were made recently among the Grand Rapids operators: Ellen Reagan, evening supervisor, Main office, promoted to evening chief operator; South office, succeeding Martha Johnson; Anna Voet, senior operator, promoted to evening supervisor; Grand Rapids Main office, succeeds Ellen Reagan; Agnes Nielson, day operator, promoted to senior operator; Anna Daoust, day supervisor, promoted to evening chief operator; Main office; Mona Stalter, day operator, Main office, promoted to evening supervisor; South office.

Martha Johnson, resigned her position as evening chief operator, South office, to be married to Glenn Rodgers of this city.

Sadie Nell, toll chief operator, has returned to her duties after a visit with friends in Coopersville.

R. C. Sackett and G. W. Johnson entertained with a farewell dinner at the Pantland, February 5th.

The following is an extract from the social

section of a Grand Rapids paper: "Amelia Palmer, Official private branch exchange operator, and Emma Palmer, chief operator at the Main exchange of the Bell Telephone Company, entertained with a pretty birthday dinner Sunday. The dining room and tables were very artistically decorated, southern smilax being used. After the repast the party adjourned to living rooms. Music was furnished by Agnes Melcher, Olive Gillespie, Eleanor Heintzelman and George Palmer. Fred Mich gave a comedy monologue consisting of stunts, comic songs and verses."

Repairs and overhauling of the Grand Rapids-Hally toll line were completed February 28th.

Jackson District

Emma Taylor and Nelle Miller resigned their positions as operators at Jackson on account of home duties. Anita Sheldon and Hazel Knickerbocker have been engaged as operators.

Wednesday evening, March 4th, Miss Shorr, Jackson chief operator, entertained the Bell basket ball team, Miss Hunt, extension secretary, and Miss Younkin, coach, at supper at the Y. W. C. A. Covers were laid for ten and the table was very pretty with a center piece of primroses. Miss Hunt showed the girls through the association quarters and made a trip to the roof garden, which is a special feature of the building. Following this practice was held in the gymnasium, the Bell girls coming out victorious (as usual) "Bell, 5; Citizens, 4."

Kalamazoo District

An estimate covering aerial cable and pole-line construction at Galesburg was completed February 24th.

Nine Welderman succeeds Iva Shook as manager at Sturgis.

The evening of February 19th was the Time, Robinson Hall was the Place, and the Girl—well, she was very much in evidence at the dancing party given by the operators of the Benton Harbor exchange. The invitations read "Dancing from 8:30 p. m. to 7" and the question mark proved very flexible, same being moved ahead several times to give all their fill of tripping the "tango." The hall was prettily decorated in blue and white and punch was dispensed throughout the evening with such remarkable facility by Manager A. E. Huntley and District Manager E. P. Platt, that we were led to think they had had more than a little experience in the past in capacities other than dealing out service to the public. Mr. Schmultz of St. Joseph (no, he is not German) rendered several solos, and made a distinct hit with his "What d'ye mean, you lost your dog," and "What a fool I'd be." Margaret McDermott of the toll room also sweetly rendered "Last night was the end of the world." One hundred couples danced to the music, which was furnished by the Talbot orchestra, and which was popularly voted by all present the best dance music of the season. Several novel electric effects were used, and everybody wonders why the "dark dances" received so very many encores. However that may be, it was declared the "best dancing party ever" and did not break up until the wee sma' hours, in spite of which everybody was on duty bright and early next morning, to discuss the "time" and plan to have another just like it very soon.

Lansing District

Clyde J. Strong, former repairman at Ionia, has been appointed working manager at Portland, effective February 14th. Commercial work at Portland had been handled from Ionia prior to that date.

Harry Hampton, cable man at Lansing,


Partridge & Anderson
Designers
& Electrotypers
Engravers
& Stereotypers
ENGRAVINGS IN THIS PUBLICATION
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
100-16 N. Fifth Ave. Chicago
AUTOMATIC 31-757 31-758

ELECTROSE
TRADE MARK
INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS

No. 2 No. 1 No. 7

No. 303 New No. 10 Old No. 10

LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
60-72 Washington St.
60-76 Front Street
BROOKLYN, N. Y.
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES



Yours for the Asking!

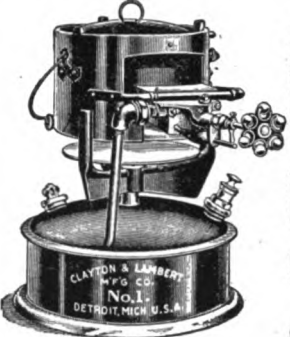
WRITE FOR A COPY

Mailed FREE on request.

It contains a lot of information about tools of all kinds. You'll find it handy. We'll gladly send you a copy without charge.

Mathias Klein & Sons
Canal Sta. 62 Chicago
Phone Wabash 628

"The Proof of the Pudding is in the Eating"



A trial of the No. 1 Fire Pot will convince any mechanic that he can do his work easier and quicker, with a large saving of fuel expense, for the No. 1 Fire Pot is not an experiment. It has stood the test and is known everywhere as the greatest general utility Fire Pot on the American market.

A pot of lead can be melted or a pair of soldering coppers heated at the same time, if desired. The top section is removable, permitting an open fire—often a great convenience.

All leading jobbers will supply at factory price, or we will ship direct if cash accompanies the order.

Send for Catalog—it's FREE.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A.

No. 1 FIRE POT
Price Each, \$6.00 Net

was married February 17th to Miss Best, of Toronto.

Beulah Garden takes the place of Essie Viges as operator at the Hotel Downey. Miss Viges has been transferred to the local board.

The private branch exchange of the Reo Motor Car Company is being overhauled, and a new No. 4 80-line board will take the place of the No. 101 board now in use. This work is being handled by L. G. Currie, district foreman.

Marquette District

Mary Nolan, local operator at the Ishpeming exchange, stole a march on her friends, February 24th. She was married at 5 a. m. to Michael Ryan, of Ishpeming.

Lily Bouchere, local operator at the Negaunee exchange, entertained the operators at her home on the evening of February 2d with a card party.

Bertha McComber, local operator at the Negaunee exchange, entertained the operators at her home on the evening of February 13th with a masquerade party.

The operators of the Ironwood exchange gave a dancing party February 19th. It

was given as a farewell party to Stella LaBlond, collector for this exchange. Miss LaBlond expects to leave Ironwood in the near future to make her home in the West. The party was a big success.

A toll station has been opened at Roycroft, Houghton County; W. S. Pritchett, manager; checked from Marquette.

Reconstruction of the Michigan State and Marquette Telephone Company's plant at Ishpeming, under an estimate authorizing the expenditure of \$19,416, was completed February 20th.

Marquette operators feel a personal loss in the death of Mrs. George C. Higbee, which occurred suddenly, February 23d. On account of her generosity and considerate treatment of the operators she was a favorite with the girls who expressed their sympathy by an offering of flowers at the funeral. The operators prize very highly a letter of thanks and advice received from Mr. Higbee.

Menominee District

The estimate covering Escanaba-Manistique toll-line additions was completed February 9th.

Petoskey District

John W. Clark has been appointed manager at Pallston, succeeding Maude Steele.

The estimate covering outside construction work at Mancelona was completed March 3rd.

The toll station at Bunyea, Wexford County, has been discontinued.

A toll station has been opened at Cloutier's Corner; J. B. Cloutier, manager. This station will be checked by Manistee.

Port Huron District

Anna Widrig, formerly cashier at Mt. Clemens, is spending a few months in Seattle. She is succeeded as cashier by Minnie Brewer.

The Mt. Clemens girls took advantage of the fine sleighing in the past month, and had some very enjoyable times at sleigh-ride parties. Judging from the noise they made, when retiring in the early hours of the morning, every one was happy.

Cupid seems to be quite a frequent visitor to the Mt. Clemens office. Every little while another diamond ring is sparkling on one of those busy fingers. Lillian Schock is the latest proud wearer.

The operators' rest room at Mt. Clemens boasts of three fine new rockers.

Saginaw District

Edith Richards, operator at East Tawas, resigned her position and is succeeded by Ida Davey.

Florence Venners, formerly relief operator at East Tawas, has been promoted to afternoon operator, succeeding Ida Davey.

Mabel Brisbois, an operator at Bay City, and Duff Turcott, manager at Flushing, were married in February.

The estimate covering poles and aerial work at Alma was finished February 26th. Underground work at that point is also completed.

The Saginaw girls gave an enjoyable dancing party March 4th in the Auditorium banquet hall. There was a large attendance, and dancing was enjoyed from 8:30 to 12 o'clock. There were attractive decorations and other pleasing features, and refreshments were served. Music was furnished by the Third Regiment orchestra directed by Dan Russo, and various delightful musical novelties were introduced.

Work installing cable at Mt. Pleasant started March 3rd.

Roadway Company Notes

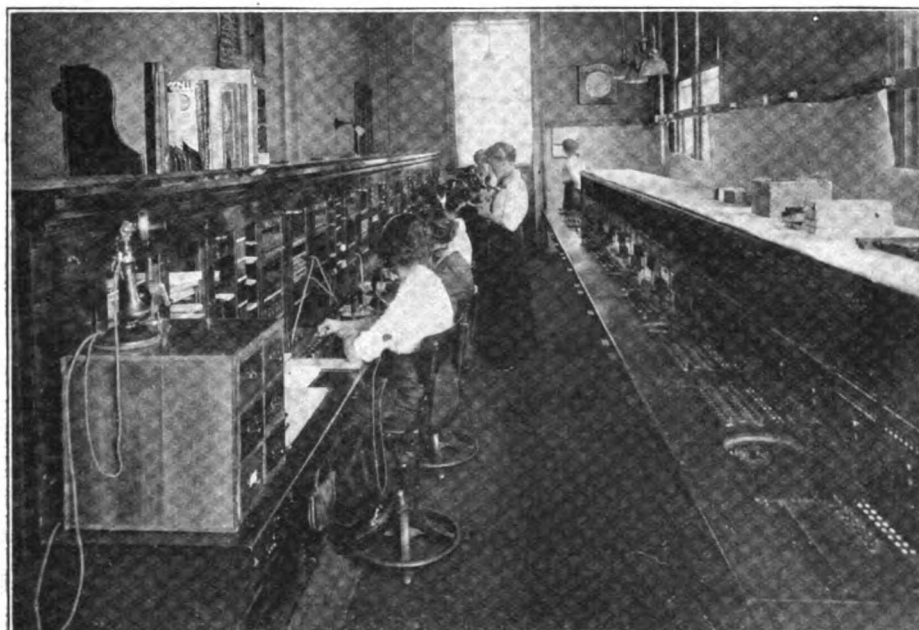
The Auburn Roadway Company has arranged to connect thirteen subscribers with the Auburn exchange.

The Marsh Roadway Company has signed a contract providing for connection of ten subscribers with the Algonac exchange.

The Michigan Avenue Roadway has signed a contract to connect eight stations to the Dearborn exchange.

A contract has been signed with the Colonville Roadway Company effective May 1, 1914, which provides for connection of thirteen stations to the exchange at Clare.

Five service-station contracts with Lynn L. Gorton of Waterloo Township, Jackson County, have been signed, effective January 1, 1914, and providing for service to the following exchanges: Line No. 1, sixteen stations, Grass Lake; Line No. 102, eleven stations, Chelsea; Line No. 103, nine stations, Chelsea; Line No. 104, twelve stations, Chelsea; Line No. 180, fourteen stations, Chelsea.



NEW TOLL BOARD AT KALAMAZOO, MICH.

At the right of the picture is seen the new No. 1 toll switchboard at Kalamazoo, which will be "working" by the end of March. The old board, on the left in the picture, was installed in 1899, since which time many changes have been made in toll cord circuits and in methods for handling toll calls, for which the old board has become inadequate. The new board has seven sections, with eighty toll multiple jacks, ninety toll answering jacks and forty switching trunk multiple jacks; the chief operator's desk is a No. 7.

A feature of the installation is that the running edge of the new keyboard was placed thirty-six inches from the edge of the old keyboard, leaving twenty inches of available space between the backs of the chairs as normally occupied by the operators and the edge of the new board. This runway space was ample for the supervisory force. J. E. Moon, the Western Electric installer, arranged the work of installing the new board in such a manner that his men did not interfere with floor supervision or interrupt service in the slightest degree by unnecessary noise. Especially was the hammering scheduled for hours when it would cause the least inconvenience.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

**National Pole
Company**

Escanaba, Michigan

When you want a Lock
you want the best.

**EAGLE
LOCK
CO.**

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
**NEW YORK
CHICAGO
PHILADELPHIA**

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



**"Thomas Quality"
Porcelain Insulators**

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



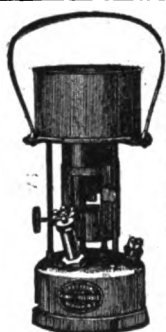
Manufactured by

The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

Offices in all principal cities



If you want the
best furnace on
the market for
YOUR work,
use the "AL-
WAYS RELI-
ABLE" TELE-
PHONE B
KEROSENE
FURNACE.
Most economi-
cal, safest and
most durable
furnace made.
Fitted with
PATENTED
"Never Leak"
Pump and
FUSED steel
tank.

If your jobber does not stock our
goods, write us.

Catalogue sent free on request.

OTTO BERNZ, NEWARK, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



No. 2521	Each
Doz. lots	20c
100 "	17c
500 "	11c
	10c

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY

Incorporated 1911

**ALBERT G.
SEEBOTH
COMPANY**

MILWAUKEE, WIS.

Manufacturers of

**Cotton Batts, Cotton
and Woolen Waste**

Phone Hanover 532

Place your orders with us,
we save you money.

**"Beldenite" Rubber Insulated
Telephone Wires**



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

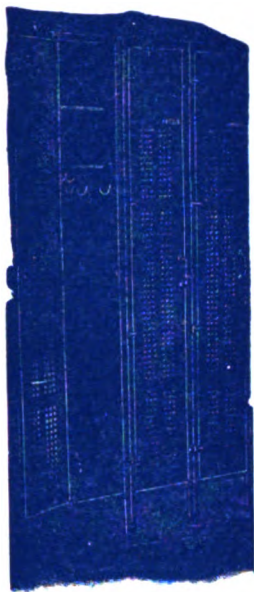
BELDEN MANUFACTURING COMPANY
2318 South Western Avenue,
CHICAGO

ADVERTISING

In the

**Bell Telephone
News**

**BRINGS
RESULTS**



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

ANCHORS



Pat. Aug. 19, '13.

that hold more, cost less, don't creep, easier to install. That's the story of the **Bierce Anchor**.

PROOF

All the big, live companies are using them, and lots of them. If you are not, you ought to get in on a good thing.

Write us for testimonials.

THE SPECIALTY DEVICE CO.
112-14 W. 3rd St., Cincinnati, O.

THE "ILLINOIS" HOT WATER HEATER

Magazine Feed



Three Sizes:

No. 5	6	7
Cap. 100	180	300
Gallons per Hour		

**EFFICIENT
AND
DURABLE**

**KEEPS FIRE
OVER NIGHT**

Illinois Malleable Iron Co.
CHICAGO, ILLINOIS

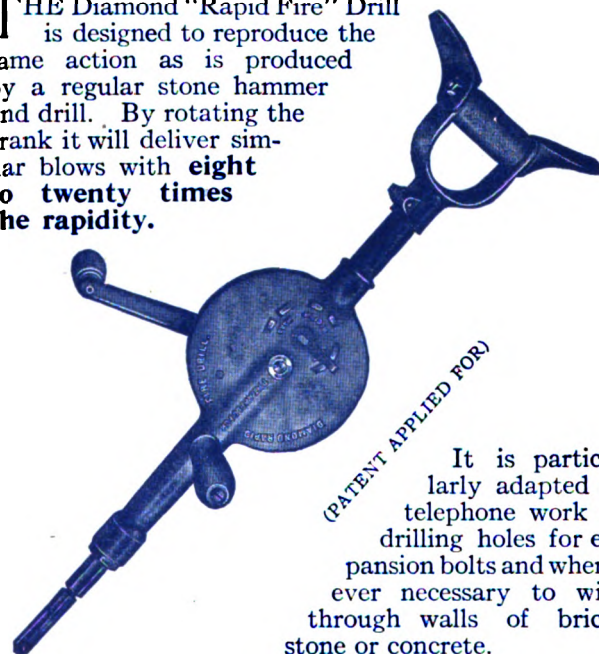
Also Manufacturers of a Complete Line of
Malleable and Cast Iron Fittings

Diamond "Rapid Fire" Drill

(PATENT APPLIED FOR)

For Economically DRILLING HOLES IN BRICK, STONE OR CONCRETE

THE Diamond "Rapid Fire" Drill is designed to reproduce the same action as is produced by a regular stone hammer and drill. By rotating the crank it will deliver similar blows with eight to twenty times the rapidity.



(PATENT APPLIED FOR)
It is particularly adapted to telephone work in drilling holes for expansion bolts and wherever necessary to wire through walls of brick, stone or concrete.

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties
90 West Street, Corner Cedar New York

Unseen Forces Behind Your Telephone

THE telephone instrument is a common sight, but it affords no idea of the magnitude of the mechanical equipment by which it is made effective.

To give you some conception of the great number of persons and the enormous quantity of materials required to maintain an always-efficient service, various comparisons are here presented.

The cost of these materials unassembled is only 45% of the cost of constructing the telephone plant.



Poles

enough to build a stockade around California—12,480,000 of them, worth in the lumber yard about \$40,000,000.



Telephones

enough to string around Lake Erie—8,000,000 of them, 5,000,000 Bell-owned, which, with equipment, cost at the factory \$45,000,000.



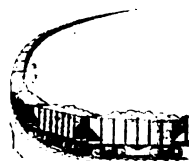
Wire

to coil around the earth 621 times—15,460,000 miles of it, worth about \$100,000,000, including 260,000 tons of copper, worth \$88,000,000.



Switchboards

in a line would extend thirty-six miles—55,000 of them, which cost, unassembled, \$90,000,000.



Lead and Tin

to load 6,600 coal cars—being 659,960,000 pounds, worth more than \$37,000,000.



Buildings

sufficient to house a city of 150,000—more than a thousand buildings, which, unfurnished, and without land, cost \$44,000,000.



Conduits

to go five times through the earth from pole to pole—225,778,000 feet, worth in the warehouse \$9,000,000.



People

equal in numbers to the entire population of Wyoming—150,000 Bell System employees, not including those of connecting companies.

The poles are set all over this country, and strung with wires and cables; the conduits are buried under the great cities; the telephones are installed in separate homes and offices; the switchboards housed, connected and supplemented with other machinery, and the whole Bell System kept in running order so that each subscriber may talk at any time, anywhere.



**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

May, 1914

No. 10

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

APRIL 1, 1914

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	517,185	254,969	772,154
INDIANA	88,955	183,642	272,597
OHIO	176,426	195,796	372,222
MICHIGAN	203,571	60,039	263 610
WISCONSIN	<u>142,071</u>	<u>115,780</u>	<u>257,851</u>
	1,128,208	810,226	1,938,434

BELL · TELEPHONE · NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., MAY, 1914

Number 10

Opening of Stewart Office Adds Another Large, First-Class Unit to Chicago Exchange.

Detailed Description of New Building and Equipment Installed to Relieve Crowded Conditions in Former Wentworth Area.

On Saturday, March 14th, at midnight, the Stewart unit of switchboard was cut over to the new equipment in the beautiful new Central Office building of the Chicago Telephone Company, at the northeast corner of Seventy-sixth street and Eggleston avenue. The first station to call on the new switchboard was Stewart 9550 calling Edgewater 8340.

On May 29, 1913, ground was broken for the new building, which was completed on October 4, 1913, or in approximately four months. The switchboard installation was started October 4, 1913, and was cut over March 14th, as noted above, a period of about nine and one-half months from the date of breaking ground to the cut-over. This is the record for Chicago and, it is believed, for the country.

This building, as will be noted from the picture, is three stories and basement, of reinforced concrete construction with outer walls of red brick paver and white Bedford stone trimming. It is an up-to-the-minute fire-proof building of colonial architecture of the residential type. Provision has been made for future additions, the foundations being heavy enough for four stories and the court walls being arranged so that the building may ultimately cover the entire lot and house an exchange of six units, which would provide service for from 50,000 to 60,000 stations. The present building is figured to provide space for central office equipment for about eight years, which is the economic period.

The interior is almost devoid of wood finish. Concrete floors, covered where necessary with Battleship linoleum, are the rule. The hallways and stairs are finished in tutti colori. The interior wood and metal trim is finished in oak and the ceiling and walls are decorated in buff and brown.

The lot faces 157 feet on Eggleston avenue and 133 feet on Seventy-sixth street, with the L shaped building on the street corner of the lot. This leaves a large park space in the rear and to the north which is being improved with grass, shrubs, trees and foliage, which will make it an ideal recreation ground

for the operators in their relief periods. An ornamental iron fence with stone-trimmed brick posts in harmony with the building, encloses this park.

The Central Office Building is 88 feet on Eggleston avenue and 131 feet on Seventy-sixth street. The long portion is 32 feet wide and the front wing 32 feet deep. The building weighs 4,300 tons, has contents of 368,000 cubic feet with a floor area of 22,500 square feet, and cost \$80,000.

The basement is devoted to the cable vault, where the cables enter from underground conduits; the battery room, the boiler

room and store-room. A refrigerating chest is also located in the basement, which is connected to the plumbing in the building and cools the drinking water used by its occupants.

The first floor main body of the building is occupied by terminal frames and racks and the wire chief's desk and testing equipment. The first floor in the wing of the building is devoted to the uses of the commercial department.

The second floor main portion of the building is the operating room, proper, in which the subscribers' and trunking switchboards are located. Adjoining the operating room on the north is a

small office for the traffic supervisor and the hospital bay and small rostrum for the operators.

The third floor is devoted to the use of the operators. On this floor are located the large rest, dining and locker rooms. In all, about 7,000 square feet of floor space has been provided for the use of the girls. The rest room is equipped with easy chairs, couches, reading tables, etc., and a fireplace has been built in the south wall of this room to make the room still more cheerful and attractive.

The entrance and vestibule are very effective and add greatly to the appearance of the building. The entrance is trimmed liberally on the outside with Bedford stone and the vestibule is finished in pink Tennessee marble.

The use of the Stewart prefix was started in June, 1910, in a



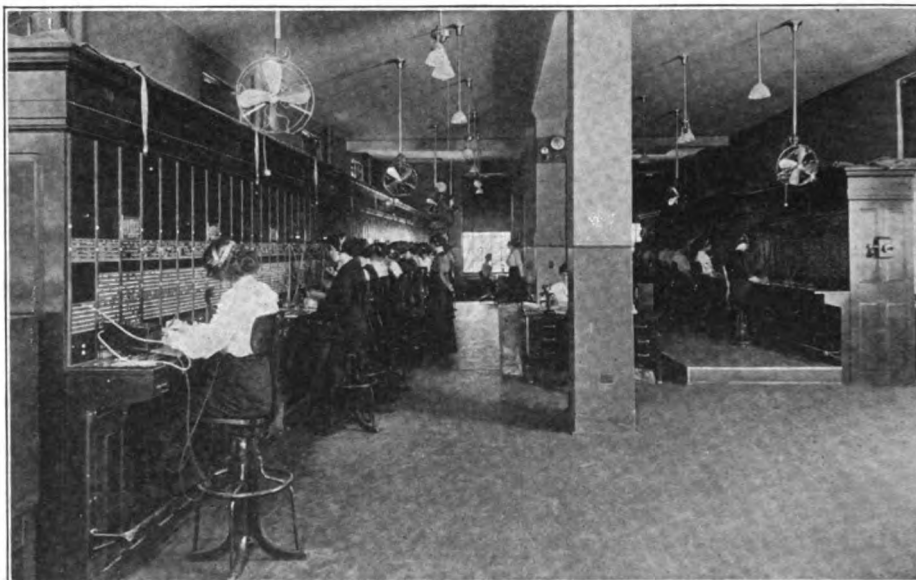
NEW STEWART OFFICE BUILDING, CHICAGO.

switchboard located in the Wentworth building on Stewart avenue near Sixty-third street. The growth in that section of the city has been steady and rapid and has necessitated the building of the new structure and the installation of the equipment above mentioned.

Of the 7,100 stations in the cut-over about 2,500 required changes of telephone numbers. This was because of Wentworth, Normal, Englewood, Prospect and Gresham numbers working in the new district. On numbers changed, Head Assignment Clerk Fred Klein, of the installation department originated the orders and gave them, in list form, to the traffic department. These numbers, together with Stewart numbers which did not require changes, were entered on the cut list by the traffic department, showing all information needed by the persons making the cut. Copies were distributed to the commercial, installation, maintenance, and equipment forces. Revision and additions were sent out each day after the lists were prepared and these entered on the lists and on the completed work by all who held lists.

Neighborhood service is furnished to about 100 subscribers in that portion of the district known as Gresham. These numbers have been given service in the past under the Gresham prefix. Neighborhood service is on a flat-rate basis between neighborhood subscribers and from them to city subscribers in the neighborhood. It was found desirable to eliminate the prefix, and in order to provide the required service, these telephones were changed to numbers from 9,900 to 9,999 and all regular city subscribers in the same area were changed to numbers from 9000 to 9899. Operators answering the former Gresham telephones are familiar with this arrangement and give free connections to any Stewart numbers in the 9000 series.

Assignments for trunk cable conductors were handled by Trunk Record Clerk William Lundie, after the orders had been issued by the traffic department. About



OPERATING ROOM, NEW STEWART OFFICE.

1,000 orders were required for this portion of the work, involving the assignment of from one to six pairs of conductors to the order.

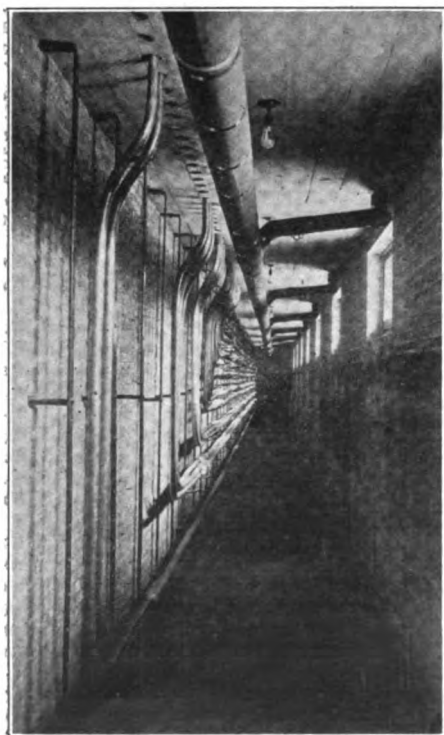
The cut-over was made by the battery cutoff method previously described in the BELL TELEPHONE NEWS. District Foreman Matthew Hayes, and J. R. Hulett, under Equipment Superintendent A. P. Hyatt, cared for the inside work in connection with the cut-over both at Wentworth and Stewart offices, completing this work three weeks in advance of the date originally scheduled.

All lines were connected into the new board two days before the cut to allow tests from the old office multiple to the new. To prevent line battery flowing from the new office out on these lines, the Stewart cutoff relays were operated by a four-volt tap from the office battery,

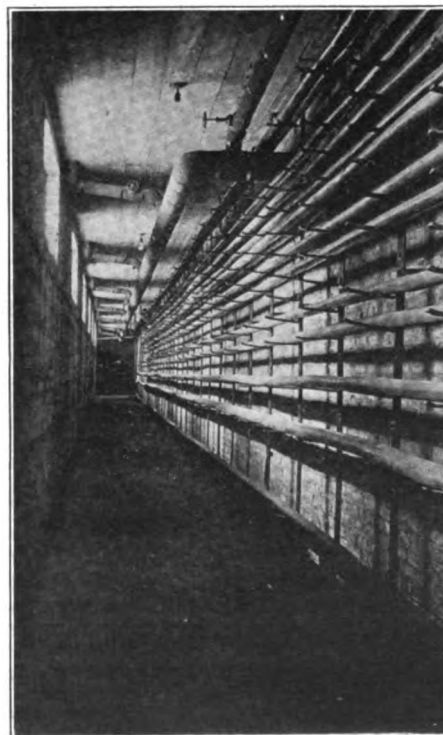
which was connected to brass marking plugs inserted in the subscribers' multiple jacks. Exactly at midnight, these plugs were removed and the jumpers toward Wentworth office cut, leaving Stewart office to "paddle its own canoe."

The necessary order wires and a few trunks to and from the tandem switchboard and Wentworth office were in service before the cut and these gave service for the light traffic of the early morning following the cut. As soon as the jumpers connecting Wentworth had been opened, trunk-line jumpers were closed down on the conductors and the full complement of trunks was working before the morning traffic commenced.

The Stewart exchange becomes part of the neighborhood division of the Traffic Department under Traffic Chief John J. Bickel. Mary O'Brien, formerly evening chief at Hyde Park, becomes day chief operator. Elizabeth Flannigan, formerly evening chief at Lawndale, is evening chief operator. The operating force consists of fourteen supervisors, two clerks, two matrons, and eighty-eight operators. Construction and installation departments are handled as in the past from Southern Division Headquarters by Southern Division Foreman T. H. Carson, and Southern Division Installer F. P. Wibley. H. R. Cornell, who was wire chief at West Pullman, is the new wire chief and has a force of three switchboardmen, two testmen, two framemen, five repairmen, one clerk and three janitors.



CABLE RUNWAY, NEW STEWART OFFICE.



CABLE RUNWAY, NEW STEWART OFFICE.

Worcester "Tech." Elects

At the Annual Meeting of the Western Alumni of the Worcester (Mass.) Polytechnic Institute, held at the Sherman House, Chicago, on April 29, Albert P. Allen, commercial engineer of the Chicago Telephone Company, was reelected as president, for the ensuing year.

Among the Chicago alumni present was E. Edward Wilder, '74, who had just returned from a meeting of the Board of Trustees at Worcester and who reported that conditions at the Tech. were never better than at present. The new Alumni Athletic Field, to which the Western Alumni largely contributed, will be used for the first time this spring. A large number of W. P. I. men are employed by the Bell and Western Union companies, and the number is increased by each graduating class.

Mr. Vail Resigns from Western Union

At a meeting of the Board of Directors of the Western Union Telegraph Company held in New York on April 15th, Newcomb Carlton was elected president in place of Theodore N. Vail, and the following preamble and resolutions were adopted as a tribute to Mr. Vail:

"WHEREAS, Mr. Theodore N. Vail has retired from the directorate of the company and also from the presidency; and

"WHEREAS, The connection of Mr. Vail with the Board of Directors of this company and his administration as president have been attended with signal benefits to the company, which the Board of Directors wishes to recognize, and its appreciation of which it desires to spread upon the records of the company; now, therefore, it is

"RESOLVED, That the Board of Directors hereby expresses its very great regret that Mr. Vail has severed his connection with this company and retired from the administration of its affairs as president.

"FURTHER RESOLVED, That the Board of Directors of this company hereby expresses its high appreciation of the great benefits the company has received from Mr. Vail's administration and as a member of the directorate.

"Among the benefits so received the board desires especially to enumerate the acquisition of the cable lines, and the inauguration of the deferred cable service which has resulted in great benefits to the public and to the company, the inauguration upon the land lines of the system of night and day letters, the extension of service by improved connections and facilities to many additional localities, the inauguration of the pension plan for the benefit of employees, the reconstruction and improvement of the physical condition of the lines, and the rearrangement of the company's organization resulting in improved discipline and service and increased facilities to the public.

"FURTHER RESOLVED, That the Board of Directors extends to Mr. Vail the thanks of the stockholders whom it represents, and the individual appreciation of its members, for the services which he has rendered this company, with the wish that he may long be spared to render to the companies with which he remains connected the benefits of his unusual administrative abilities, his ripe experience and sound judgment."

At the annual dinner of the Morse Electric Club, in New York, February 21st, Mr. Carlton, who had not then been elected to succeed Mr. Vail, said:

"In my judgment there has never been a case equal to the telephone company's interest in the Western Union. We may hold varying opinions as to the wisdom of control, but I submit to you gentlemen that there never has been a case of corporate self-abnegation equal to that which the telephone company has displayed towards the telegraph company. Show me an instance where they have benefited unduly or unfairly by this relationship. Show me a train of circumstances which has not redounded to the benefit of the public, and to you and to me. It is a most astonishing piece of imagination and constructive business philosophy, this idea which generated in that marvelous mind of Mr. Vail's. It seems—although I do not wish to be understood as going so far as to object to the momentary trend of public opinion—it seems to me a pity that we should be deprived of their support and their cooperation. I

believe that we will have their cooperation insofar as it can properly be given, and that, if we ourselves show a reasonably cooperative spirit, they will go more than half way to meet us in our desire to please the public."

Western Union Installs New Telephone Facilities

The Western Union Telegraph Company made a most interesting and satisfactory change in its methods of handling telegrams by telephone when it cut into service on the night of April 11th a new twenty-four position special-type order table, a four position No. 4 private branch exchange and a twenty-four position standard telegraph table to be used for the delivery of telegrams and baseball scores to patrons. This equipment is all located in commodious quarters on the eighth floor of the Western Union Building, 111 West Jackson boulevard. The necessity for making this change was to keep pace with the increase in the use of the telephone for transmitting and receiving telegrams by the Chicago public and also to attain an efficiency which will be gained by providing up-to-date equipment in pleasant surroundings for the many young women engaged in this work.

A special feature of the new arrangement is that any telephone subscriber in the city of Chicago or surrounding suburbs can be connected direct with the recorder at the Western Union Telegraph Company by removing the receiver of his telephone and calling for Western Union. The special-type order table facilitates the work of recording telegrams for transmission. It is arranged in twelve two-position sections with a desk at each side of an equipment cabinet. This cabinet contains several banks of trunk jacks mounted in the panel above a shelf on which is located telephone equipment consisting of two cords controlled by listening keys and connected with an operator's set jack inserted at the side of each desk at the end of the shelf.

Breast-plate transmitters and head receivers are worn by the recorders who receive the telegrams over twenty-five incoming trunks serving the table, these trunk lines being multiplied throughout each section of this table. The recorder writes the telegram on a typewriter and is assisted in getting each word clearly by one of the new features of this installation, the floor push button transmitter cut out, which allows the recorder to use both hands in operating the typewriter. At the same time, by pressing the cut-out with her foot, she can eliminate the noise in the room.

The private branch exchange handles the incoming, outgoing and intercommunicating calls for the general and executive offices of the company. Both the order table and the private branch exchange have intercommunicating connecting trunks and call circuits for handling promptly any calls intended for other than the transmitting of telegrams on the order table or for general office calls on the private branch exchange, which may be promptly transferred. The delivery tables are arranged in four separate groups of six positions to a table. They are equipped with lines direct to the exchange, terminating in an operator's set jack with breast-plate transmitter and head receiver worn by the operator delivering the telegram.

During the baseball season these lines are also used for forwarding baseball

scores to the patrons in various sections of the city who subscribe for this service. The scores are received by telegraph and posted on a large blackboard and each patron is called at specific periods each hour during the continuation of the games. This equipment is flexible and additions can be made very easily. The room in which the telephone equipment is located is specially adapted for handling this work and should prove a great advantage in the service given the patrons of this company.

As It Actually Works

An interesting sidelight on the actual operation of government ownership of the telephone is furnished by the article below, reproduced from a recent issue of the *Advertiser*, published at Blairgowrie, Perthshire, Scotland:

"In the House of Commons Mr. Pointer asked the Postmaster-General whether he was aware that the telephone at Coupar Angus was to be removed to premises which had not been occupied for two years, contained no windows at the back, and were stated to be insanitary and lacking in means of ventilation; whether he was aware that the remuneration of the operator, who was to provide a continuous day and night service, was the free occupation of the premises and a wage of 4s per week; and whether he would have inquiries made into the suitability of the premises and the remuneration for the services to be provided. Mr. Hobhouse—I will make inquiries into this question, and will inform the honorable member of the result."

C. A. of C. Tour

A. G. Francis of the Chicago Telephone Company was a member of a delegation of Chicago Association of Commerce members who took a tour through the southeastern states April 12th to 26th. The itinerary included Louisville, Ky.; Lexington, Ky.; Chattanooga, Tenn.; Knoxville, Tenn.; Asheville, N. C.; Winston-Salem, N. C.; Greensboro, N. C.; Charlotte, N. C.; Columbia, S. C.; Charleston, S. C.; Augusta, Ga.; Savannah, Ga.; Jacksonville, Fla.; Macon, Ga.; Columbus, Ga.; Atlanta, Ga.; Montgomery, Ala.; Mobile, Ala.; Birmingham, Ala., and Nashville, Tenn.

Chicago Tennis League

The Chicago Telephone Company has entered a team in the Chicago Tennis League, of which the other members are the Commonwealth Edison Company, People's Gas Light and Coke Company, Sears, Roebuck and Company and the Western Electric Company.

Each company will play four dates, beginning June 20th, and thereafter every Saturday afternoon. The matches—three sets of doubles and six sets of singles each—will be played on clay courts.

The Chicago Telephone Company has arranged to play its home games on the grounds of the Wanderers' Club, Seventy-first street and Jackson Park avenue. Practice and try-out games will be arranged at various conveniently located courts throughout the city.

In order that a team may be chosen for the events mentioned above, and for other tennis events which will follow, the employees who are interested should call Local 303, Mr. Ryan, and leave their names and addresses at the earliest possible moment, in order that practice games may be arranged.

Cut'over at Monroe, Mich.

One of the most successful cut'overs of the past two years took place at Monroe, Mich., on Sunday, March 8th, at 1:30 in the afternoon. The change was from a No. 105 (magneto) to a No. 10 (common battery), with ten positions, six local and four toll. Two of the local positions are for rural subscribers and at one of these are located the lines of the subscribers most remote from the office; this position is equipped with drops instead of lamp signals.

The new board is equipped with 1,000 subscribers' multiple jacks and 1,000 answering jacks, forty toll multiple jacks and thirty toll answering jacks. There are about 1,150 subscribers at Monroe, including rural stations at Grape, Stony Creek, Frenchtown, Raisinville and Vienna. The present population of Monroe is between eight and nine thousand.

The Western Electric men are to be congratulated on their work at Monroe. The installation of the board and the testing were up to the high standard of that company, and credit goes particularly to E. G. Norton, foreman, J. M. Owens and E. K. Atkinson, the Western Electric testers.

H. E. Harrington, equipment supervisor, was in charge of all the inside work for the Michigan State Telephone Company. Glenn Barry and William Fisher, who did this work for Mr. Harrington, did it so well that when the heat-coils on the old rack and the wooden plugs in the new switchboard were pulled, not one single case of line trouble was found. The only case that developed was that of a subscriber who had left his receiver off the hook. H. Stockholm has been changing the instruments, and will complete this work in a short time. Subscribers had been already visited once, condensers having had to be inserted on every bell-box.

The outside work was in charge of Assistant Plant Superintendent C. E. Gardner. It was practically all new, and consisted partly of underground cable and conduit placed in conformity to a city ordinance recently passed.



CONSTRUCTION CREW WHICH REBUILT MONROE EXCHANGE.

Left to right, top row: F. Brest, driver; J. Crowder, lineman; J. Crawley, cableman; E. Davenport, clerk; C. Boughton, lineman; H. Quick, cable helper; G. H. Downing, cableman. Bottom row: R. A. Smith, foreman; J. Lavers, assistant foreman; B. L. Cushman, cable foreman; C. P. Johnson, rackman; E. Jewett, lineman; E. Kemp, lineman; F. Ellis, lineman; W. Upton, stock keeper; L. Libby, cableman; E. Nichols, lineman; W. D. Long, cable helper.

The newspapers at Monroe took a great deal of interest in the change of telephones from a magneto to a common battery system, and were generous in the amount of space given to the subject, profusely illustrating their articles with photographs, some of which appear on this page.

Margaret Woods, traffic supervisor in the state, had been staying at Monroe for several days before the cut'over, instructing the local operators in the use of the No. 10 board. Miss Woods was painstaking and thorough with the girls, and it was a pleasure to see the perfect self-possession with which they handled the calls when the bunched cords were pulled. Four operators from Detroit were on

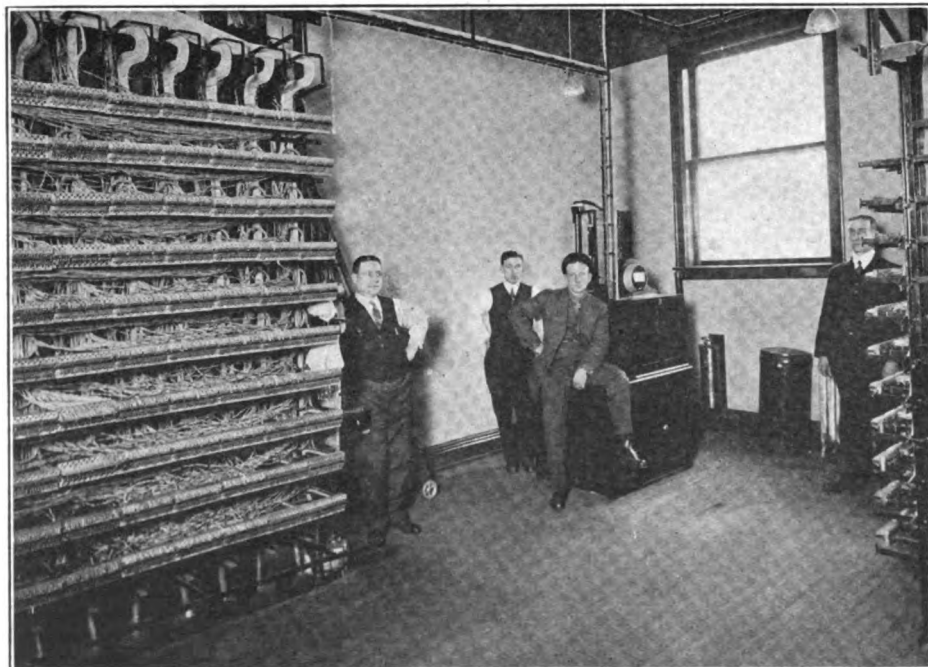
hand to assist in case of emergency, viz., Florence Kieffer, Loretta Ohlert, and Katherine Brennan from the Main office and Clarice Neate from the toll room, but it is interesting to note that a local operator, Violet Jay, got the first call and handled it with perfect smoothness. (It was a call to a clergyman from one of his parishioners—which seems appropriate for a Sunday cut'over.)

Among those who witnessed the final "twist of the wrist" which cut the old board into the new were: C. G. Sharp, plant superintendent; W. A. Spencer, traffic superintendent; C. E. Gardner, assistant plant superintendent; J. E. Scott, district manager; H. E. Harrington, equipment engineer; Fred Clarke, traffic engineer, who has been in charge of the operating department incident to the cut'over, and D. H. Keyes of the engineer's office.

After the cut'over it was decided to allow the operators and staff to settle down to the new conditions before introducing any new excitement, therefore the public reception was set for March 21st. The reception was a striking success in every way.

Ladies were "especially urged to be present" because it was the intention to present each lady with a carnation. The question was, however, how many carnations to order. Attendance at a function of this kind is something that cannot be prophesied closely, even with experience to back it, because there are so many things which affect it. Saturday had been chosen because it was a market day, and most persons would be out—if it were fine weather (which it luckily turned out to be); the farmers from the outlying districts would undoubtedly be present in Monroe; the subscribers numbered 1,100 and the population was about 7,500; there was no other attraction billed for that day. Accordingly, 200 carnations for the ladies and 1,000 celluloid blue bells for the men's coat decorations were ordered.

The estimate on the masculine contingent turned out to be pretty close, for just about 1,000 men came to the exchange. But Shakespeare's "unexpressive she" proved true to the description;



TERMINAL ROOM, NEW MONROE OFFICE.

Left to right: Charles P. Johnson, line wire chief; L. S. Marsh, local wire chief; Ralph A. Smith, construction foreman; John L. Blood, manager.

Instead of 200 women visiting the exchange 1,500 of her appeared on the scene! That makes 2,500 visitors to the telephone exchange in a place of a population of 7,500—not a bad percentage, and indicative of good telephone service, too. The carnations disappeared like dreams before the opening day and Manager Blood had to send twice to Detroit for more. After he had secured 750 there were no more to be had, so thereafter the ladies were decorated with the blue bells, which were not all used because some of the men passed in and out too swiftly in the crowd to be "pinned."

A force of men from the traffic and commercial departments in Detroit came to Monroe to serve as guides around the exchange. These men were: W. E. Dawson, E. M. Steiner, D. S. Burke, R. T. White and J. Rodney Weeks. Commercial Superintendent G. M. Welch and Eastern District Manager J. E. Scott also came along. Mr. Blood's stenographer, Miss Schmidt, kept count of the attendance with a pad and pencil near the door.

The people of Monroe came into the exchange so rapidly that it was impossible for the guides to show them around singly; they had to be grouped first in bunches of five and then of ten. Finally this could not be done, and a long line of persons waited until others had been shown around and had gone. The press in the operating room was so great that at times one could not see even the top of an operator's head from a distance of two yards back of her.

Amid this stirring scene the eight operators at the board continued their work with the utmost calmness; indeed, the room might have been empty for all the difference it made with the traffic. Credit for this should be given unstintingly to these young ladies—and to Traffic Supervisor Margaret Woods, who had trained them so well to operate the, to them, new equipment. At the first position two portable instruments had been connected with the board, so that the actual conditions of a call might the more interestingly be explained to the audience, and the comings-in and goings-out of the answering and supervisory lamps shown instantaneously with the movements of the switchhooks on the telephone. This made a big hit with the visitors.

There is no doubt that visits of this kind by the public—subscribers or non-subscribers—to a telephone exchange in this friendly way do a great deal of good, both to themselves and to the management. Even superficial familiarity with the work of the telephone operator prevents a whole lot of erroneous suppositions by an impatient patron that the girl is neglecting her duty when a call is sometimes not put through in as little time as it takes to remove the receiver from the hook. A more detailed study of telephony, such as the Monroe people secured on the reception of March 21st, cannot fail to bring about a better feeling all around.

Installers Find a Way

Will H. Connette and Russel Weybright, combination installers in South Division, Chicago, claim to be the inventors of a new method to be used in installation work. Certainly the expedient they employed to overcome an unexpected difficulty encountered in their work deserves to rank with the celebrated "ferret" stunt, with which underground conduit men were wont to astonish the credulous in the "old days."



NEW SWITCHBOARD, MONROE, MICH.

Glenn Barry and William Fisher at the board ready to pull the "strings." Margaret Woods, traffic supervisor, hides coyly behind John E. Blood, local manager.

The two had a line to run from the first to the third floor of a large house on Ellis avenue. The house was provided with a conduit for telephone wires but the outlet boxes were located in such a way that there were four bends. The men first tried pushing a steel fish tape first from one box then the other, but were unable to get past a point on the second floor. They kept up the ineffectual work for several hours. Finally Mr. Connette bethought himself of the vacuum cleaning apparatus in the basement. They started the machine, then took the large hose to the third floor. After splicing on a piece of garden hose, which was small enough to be inserted in the cut-out box, they placed the end over the opening in the conduit. Then they tied a string to a piece of paper and stuck it into the other end of the conduit. It went through like a shot, carrying the string, and the problem was solved.

Milwaukee--50,000

March 1, 1914, marked an epoch in the history of the Milwaukee exchange and was the occasion of much rejoicing. On that day Milwaukee passed the 50,000 mark in the number of its subscribers. Early in the year, District Commercial Manager George C. French, whose accuracy as a forecaster of events is widely known among the Milwaukee force, prophesied that on March 1, 1914, Milwaukee could boast of 50,000 subscribers. And it did.

The question then arose, "How was it done?" By earnest, conscientious and loyal efforts on the part of all of the Milwaukee employees the goal was reached. Every prospect that could be secured by the plant, traffic and commercial departments was turned over to the commercial agents for development, resulting in contracts for service.

The year 1913, while being somewhat of an off year in some lines of business, proved a record breaker for the Milwaukee exchange, the net gain in subscribers being 5239, which is the largest gain for any year. During 1907, when trial service was being offered, the gain was 5,117. During 1913 when there were no special inducements to attract subscrib-

ers, the net gain was greater by 122 subscribers. This would seem to indicate that the telephone is becoming more and more of a necessity, and that the growth in subscribers will be steady and consistent. The use of the telephone is fast reaching the point where its growth is due to its merits alone and where the service speaks for itself.

The commercial department has issued a placard requesting the assistance of every employe to secure a sufficient gain to reach the 54,000 mark by January 1, 1915. These placards are posted in every office, wire chief's room, and operating room in the Milwaukee exchange, whereby all employes will be constantly reminded of the goal set for the year.

The response thus far is gratifying.

Workmen Dangle in Shaft

Workmen braved the danger of suffocation on the night of March 31st to restore communication facilities destroyed by flames which threatened the Reliance building, 32 North State street, Chicago, the previous afternoon.

The flames climbed the sides of the narrow pipe-shaft alongside the elevator-shaft and burned off the cables carrying telephone wires to the offices on all floors above the third. At each floor the cable was cut off as neatly as if by a knife. In order to restore telephone communication before Tuesday morning, workmen were suspended from the fourteenth floor down into the narrow pipe-shaft before the heat had died out. Seated on small boards hung by long ropes from the top floor, the repairmen replaced all of the destroyed cables in the night. The wires connecting 140 telephones with the Randolph office were in working order before daylight.

Copies of Report for Employees

Any employe of the Central Group can secure a copy of the annual report of the American Telephone and Telegraph Company by applying to the editor of THE NEWS. Mr. Vail's treatment of the general telephone situation, including a masterly analysis of the questions of government ownership, should be studied by everyone in the Bell organization.

Annal Bowling Show

Good feed, good music, good show, good acting, good time. This is a tabloid description of the third annual banquet and show given by and for the Bell Bowling League of Chicago at the Hotel Sherman April 16th. The banquet and entertainment committees and performers are entitled to congratulations on the all-around success of the evening.

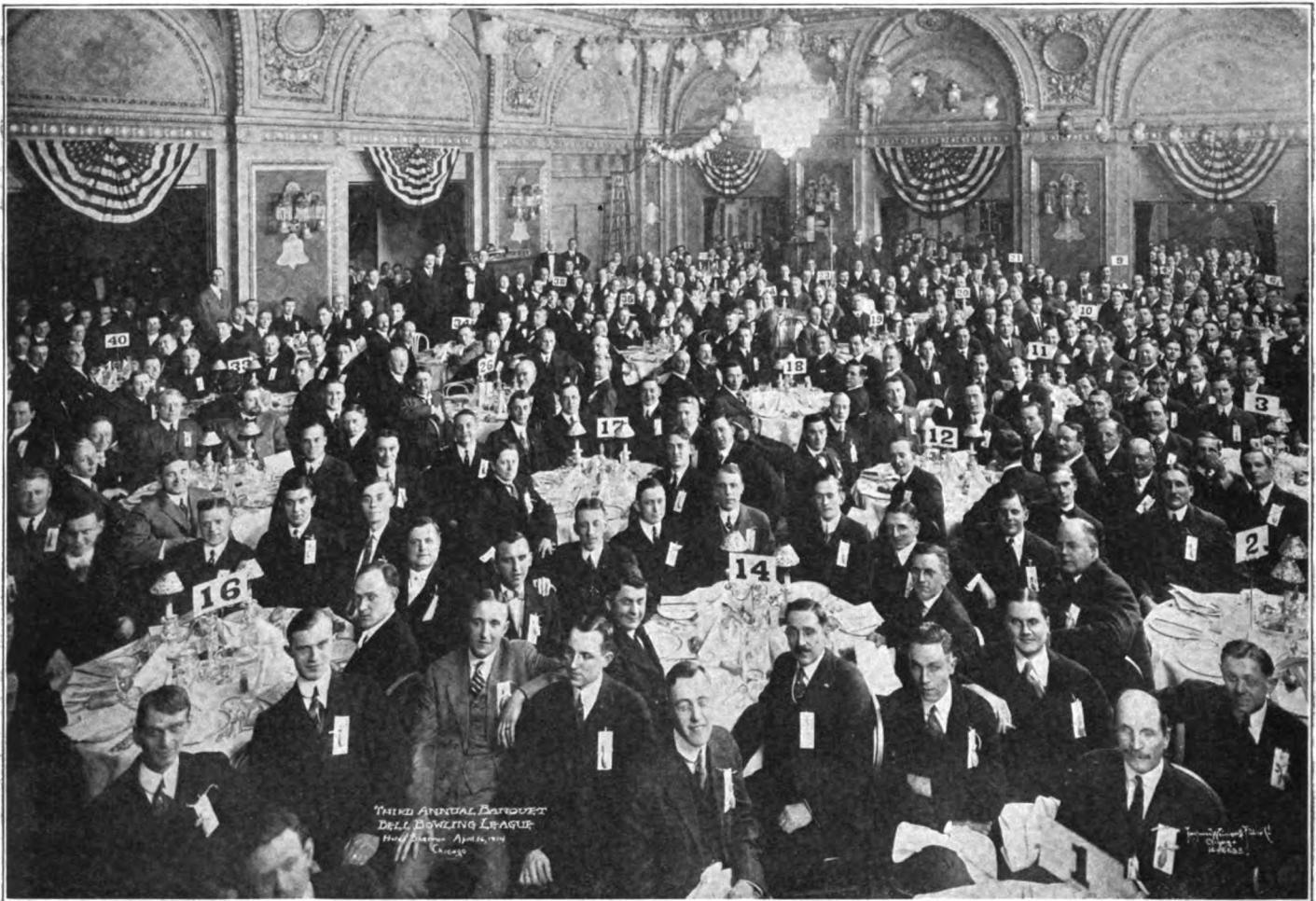
After the 660 bowlers and their firends among the Chicago Telephone Company officials and employees had disposed of the ample dinner provided by the banquet committee, Vice-president Hill presented the prizes to the winning teams and individual bowlers. Judge Cutting of Holt, Cutting and Sidley, attorneys for

and fussy draperies now affected by women of quality. To J. C. Weisert and T. J. Hardy fell the role of rustics, which, despite the pangs which the wearing of such attire must have cost these models of urban elegance, they sustained with appropriate insouciance. Eric Herder, G. L. Atkins, Edw. O'Grady, Harry C. Enault, C. B. Robinson, R. M. Bennett, J. P. Chamberlin, H. W. Fox, J. M. Bayne, F. B. Roziene, B. P. Mengel and R. H. Bennett distinguished themselves as prominent officials and bowlers and the make-up by which they strove to resemble and the antics by which they sought to imitate these originals alike provoked the enthusiasm of the audience. Not least important in the cast should be named the chorus and supernumeraries, the lat-

Traffic	50	31	.617
Maintenance	49	32	.605
Revenue	40	41	.494
Construction	37	44	.457
A. T. & T.	25	56	.309
Suburban Coml.	13	68	.160
Collectors	12	69	.148

Following is a list of players who rolled ten games or more and averaged 160 or better for the season:

Name and team.	Games.	Aver- age.
Carey, Coml.	78	187.47
Love, Coml.	81	184.01
Johnson, Engr.	78	183.32
Weich, Inst.	72	181.26
Halberg, Inst.	81	178.52
Bontemps, Mtce.	72	176.54
Atwood, Engr.	54	175.83
Smith, A. S. R., Traf.	81	174.32
Langlund, Engr.	81	174.26
Heimbach, Mtce.	75	174.20
Hopkins, Inst.	45	173.16



THIRD ANNUAL BANQUET, BELL TELEPHONE BOWLING LEAGUE OF CHICAGO.

the Chicago Telephone Company, made a short, humorous talk while the performers in the forthcoming "play" were getting on their paint.

The play was a medley of timely and characteristic nonsense written by M. D. Atwater, E. H. Bangs and A. P. Allen. It was called "A Picnic for the Team" and had to do in great part with the failure of the team of Chicago telephone bowlers to bring home prizes from the Buffalo tournament. This melancholy circumstance was appropriately satirized in song and jest.

Most of the well-known telephone comedians and a few new ones took part and displayed their usual mastery of amateur stage craft. H. P. Wayman shone in his favorite negro impersonation, while Paul Sainsbury and Jack Riddell successfully disguised their masculinity in the filmy

ter of which did yeoman service in animal impersonations.

The entertainment was also the occasion for the first public appearance of the Chicago Telephone Company orchestra and glee club, newly formed musical organizations composed entirely of telephone employees. These alternated in supplying music during the banquet and their performance furnished one of the surprises of the evening. Few professional organizations could indeed claim superiority to the Bell orchestra and glee club.

The bowling season just closed by the league was a success in every way. The teams finished in the following order:

Team.	Won.	Lost.	Per- cent.
Installation	64	17	.790
Engineers	58	23	.716
Commercial	57	24	.704

Kain, Inst.	68	170.79
Carson, A. T. & T.	23	169.78
Tracy, Coml.	81	169.75
Mommsen, Mtce.	35	169.54
Driscoll, Inst.	38	168.89
Christia, Mtce.	27	168.78
Truax, Engr.	55	168.37
Waltman, Mtce.	70	167.80
McColl, Rev.	66	167.70
Kingman, Traf.	72	167.64
Behm, Const.	26	167.46
Moersch, Mtce.	10	167.40
Rumney, Coml.	75	165.99
Simons, Mtce.	75	165.89
Rigeman, Sub. Coml.	49	165.78
Wendorf, Rev.	75	165.39
Anschuetz, Engr.	72	164.78
Herr, Const.	75	164.64
McLaughlin, Traf.	63	164.60
Ross, Inst.	14	164.50
Schroeder, Rev.	42	164.29
Neeson, Rev.	58	163.84
Lovell, Const.	80	163.46
Schwimmer, Inst.	64	163.11
Dupke, Rev.	15	162.80
Allen, Traf.	18	161.00
O'Brien, Const.	75	160.40

The Fly and Its Elimination.

By Dr. Alvah H. Doty, Medical Director Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company

Spring may be regarded as the most effective time to organize crusades against the fly, for at this period many of these insects, concealed during the winter in comfortable and protected places and in a dormant or inactive condition, known as the hibernating stage, are revived when the warm weather returns and seek breeding places and lay their eggs. It is largely in this manner that both flies and mosquitoes are perpetuated from one season to another.

The importance of destroying flies which appear early in the year is apparent, for a female will deposit 125 or 150 eggs at a time; besides only ten or twelve days elapse between the dropping of the eggs and the birth of the winged insects and these in their turn begin to lay eggs within a few days afterwards. The number of offsprings for which a female fly is responsible is incalculable. It has been roughly estimated that within two or three months this amounts to over 250,000,000. Therefore the destruction of the winged insects except at the beginning of the season is of no practical value.

Although the propagation and development of the fly has not been so successfully studied as the mosquito, we have learned sufficient to know that it breeds with great rapidity wherever filth is present and disappears wherever cleanliness is enforced.

The development of the fly involves several stages. The first relates to the deposit of the eggs which is usually followed within twenty-four hours by the appearance of the larvae or second stage of development. After about five days the larvae become pupae, constituting the third stage of development, and after a

further period of five days a pupa gives birth to the full-grown fly.

The larvae are commonly known as "maggots" and when full grown are about one-fourth of an inch long and appear as white crawling bodies, having the appearance of caterpillars. Maggots may be detected during the warm weather upon almost any manure heap or upon dead and decomposed animals or other putrid substance. The pupae are rather bean-shaped and brown in color, and may also be found in great numbers on offensive material.

In the elimination of the fly it is important that the larvae and pupae should be recognized, for it will more keenly indicate the need of the destruction or removal of breeding places.

It is much easier to exterminate or reduce the number of mosquitoes than flies, as the breeding places of the former are more easily detected, for they breed only in water, and as a rule this is confined to small collections of it. Therefore by careful search these may be discovered and destroyed and the mosquito exterminated. On the other hand, the fly does not breed in water, but in any putrid or offensive matter which it may find, for it is a filthy and degraded insect.

Investigators have more recently discovered that flies very much prefer horse manure for their breeding places. This knowledge is a valuable contribution to the subject and of great aid in the reduction of these insects, for it teaches us if the stable is kept clean and the manure promptly collected and placed in a properly covered receptacle while awaiting removal, instead of being thrown about the premises, the most common breeding place

of the fly is removed. Carelessness in this direction, as well as the presence of privy vaults and garbage heaps, will explain why farm houses and country homes are almost always subjected to great and continued annoyance from flies; however, it is here where the most satisfactory result may be obtained, for it is only necessary for each family to abate its own nuisance to obtain relief from this insect, whereas in the city one must suffer from the carelessness and filth of others.

While everyone has good reason to know that the fly is a very annoying insect, it is only within recent years that we have obtained satisfactory and reliable proof that it is a dangerous medium of infection and evidence is constantly accumulating to show that it is probably responsible for the transmission of many infectious diseases, for instance, cholera, typhoid fever and tuberculosis. Besides the transmission of other infectious diseases, it is undoubtedly accountable for the contamination of food and drink which is often the cause of intestinal irritation. This commonly occurs during the warm weather and is particularly fatal to young children. Over 5,000 deaths from this cause occurred in New York during 1910. There is also evidence that parasitic worms may be introduced into the system of the human being by the fly.

There are many varieties of the fly found throughout the world, some of which are very dangerous; for instance, the Tsetse fly, which is found in Africa, is responsible for the transmission of a very fatal disease known as the "sleeping sickness." This, as well as some of our domestic flies, bites. It is now be-



ENSEMBLE, "A PICNIC FOR THE TEAM."



COMMERCIAL TEAM.

Left to right, upper row: Tracy, Rumney, Carey. Lower row: Love, Flynn (Capt.).

lieved that one of the latter is capable of transmitting the germ of infantile paralysis. Although contrary to the general belief, the common house fly with which we are chiefly concerned, for it constitutes more than ninety per cent. of all insects of this type which invade our homes, does not bite, but transmits infection by its feet and body and in this way contaminates our food and drink. This variety has received the name of the "typhoid fly," for it is believed to be a very frequent source of infection in this disease, particularly in the country or in sparsely settled districts where privy vaults are in common use. While it is probable that the danger of infection from this source is somewhat magnified, there is every reason to believe that it does occur.

In addition to other articles of food, it is also quite certain that milk both in the country and the city is contaminated by the fly; this also occurs in connection with the stale fruit which is for sale at the street stands and by street vendors. The latter constitute very unsanitary and unhealthy means of dispensing food and drink, are particularly dangerous to children and should be prohibited by law.

Unfortunately the public has not a clear understanding as to the proper means by which flies may be eliminated or reduced in number or the principle which is involved in this important sanitary measure. Innumerable devices known as "fly catchers" are offered for sale for the purpose of entrapping or destroying these insects, and are very popular with the public; however, this method has no practical importance in the work of eliminating the fly.

It is to be regretted that other impractical methods are employed in this direc-



CONSTRUCTION TEAM.

Left to right, upper row: Fitzgerald, Sweeney, O'Brien. Lower row: Lovell (Capt.), Herr.

tion; for instance, school children are encouraged to destroy flies with the promise that it will materially aid in the elimination or reduction of these insects, and prizes are given those who kill the greatest number of them. This is not only of no practical value, but there are serious objections to it, for it gives children as well as adults an incorrect idea of the means which should be employed in this work, i. e., the removal or destruction of breeding places rather than the destruction of winged insects, for the number thus gotten rid of is comparatively so infinitesimally small that it extends only fancied relief except at the very beginning of the season; besides, these various impractical methods do not tend to stimulate health authorities to strictly enforce regulations in the way of the removal of breeding places and securing cleanliness about the premises.

It is very desirable that children as well as adults shall take part in the preservation of the public health, but their education in this direction should be in harmony with the dictates of modern sanitation. Everyone may render valuable service in the elimination of flies and mosquitoes, but aid in this way comes from the detection of breeding places and efforts to secure their prompt removal and destruction.

Protection within the house against the entrance of flies and the infection which they may convey cannot be successfully secured by traps or other apparatus, besides the comparatively few insects caught by these means are not always the ones which are infected and dangerous. Protection in this direction can be effectively secured only by the use of properly constructed and adjusted screens; curiously enough, this is but rarely at-



REVENUE TEAM.

Left to right, upper row: Foote, Neeson, Dupke. Lower row: Wendorf (Capt.), McColl.

tended to, for this valuable method of protection is almost always faulty in its application.

Although all the dangers of infection and contamination attributed to the fly have not yet been conclusively proven, still there is sufficient conclusive evidence to stamp it as dangerous to the health and comfort of the human being, and every reasonable effort should be made to exterminate it. While the latter may be practically impossible, at least at present, these insects may by proper means be so far reduced in number that it will go far to aid in the preservation of the public health; however, this result cannot be obtained without the cooperation of the public. Therefore everyone may render material aid in this important work, but it is certain there is but one way to secure successful results and that is by the destruction or removal of the breeding places of the fly; this may be summed up in one word—cleanliness.

Telephone Officials at Bond Men's Club

During the past few months several officials of the Chicago Telephone Company have given talks to the Bond Men's Club, a leading organization of business men. President B. E. Sunny talked at one of the luncheons on some of the general aspects of the telephone business. A. R. Bone discussed at one meeting the commercial aspects and G. W. Cummings the plant department point of view. On April 16th the luncheon was given in the Telephone building and was followed by a talk by H. N. Foster and an inspection of the operating rooms.



INSTALLATION TEAM.

Left to right, upper row: Driscoll, Halberg, Hopkins, Kain. Lower row: Welch, Riddel (Capt.), Schwimmer.



SUBURBAN COMMERCIAL TEAM.

Left to right, upper row: Larson (Capt.), Kraft, Kent. Lower row: McLindon, Riggman.



MAINTENANCE TEAM.

Left to right, upper row: Waltman, Rush, Mommsen. Lower row: Helmbach (Capt.), Bontemps.



ENGINEERS TEAM.

Left to right, upper row: Langlund, Truax, Ebert (Capt.). Lower row: Johnson, Atwood, Anschuetz.

Wisconsin Commercial Meetings

During March commercial meetings were held in the Appleton and Eau Claire Districts. The first meeting was at Oshkosh, March 10th and 11th, the second at Green Bay March 18th and 19th, and the third at Eau Claire, March 25th and 26th.

The work done during 1913 was reviewed and plans outlined for 1914, and there was also a discussion of routines and commercial work in all its phases. All of the meetings were attended by the following officials from the Milwaukee headquarters:

H. O. Seymour, general manager; F. M. McEniry, commercial superintendent; L. Killam, plant superintendent; F. H. Lincoln, traffic superintendent; W. D. Hobbs, engineer; J. F. Krizek, attorney; O. B. Koepke, division auditor of receipts; T. N. Moore, special agent; W. W. Hiller, chief commercial agent.

The Oshkosh meeting was also attended by the following:

J. T. Quinlan, district manager, Appleton; D. E. Gaffney, manager, Appleton; W. J. Ennis, manager, Fond du Lac; E. Sorenson, manager, Berlin; B. Lendved, manager, Hortonville; N. G. Willarson, manager, Neenah; A. C. Gallagher, manager, Oshkosh; O. R. Klenitz, manager, Princeton; B. C. Nelezen, manager, Omro; E. P. Parish, district commercial agent, Appleton; J. A. Hawes, commercial agent, Appleton; P. N. Hoebe, commercial agent, Fond du Lac; C. H. Monahan, commercial agent, Oshkosh; W. E. Hinz, commercial agent, Oshkosh; G. R. Lyman, wire chief, Appleton; S. O. Carlin, wire chief, Fond du Lac; Thomas Garland, wire chief, Neenah; C. J. Larson, wire chief, Plymouth; Joseph Wilson, wire chief, Oshkosh.



COLLECTORS TEAM.

Left to right, upper row: Morris, Collins, W. Flynn. Lower row: McMonies (Capt.), Anderson.

The Green Bay meeting was also attended by the following:

J. T. Quinlan, district manager, Appleton; E. J. Nagan, manager, Algoma; J. G. McEniry, manager, De Pere; A. J. Schultz, manager, Green Bay; F. E. Schmidt, manager, Kaukauna; M. J. Rice, manager, Kewaunee; C. H. Bau, manager, Manitowoc; H. F. Bornheimer, manager, Marinette; W. A. Sheerin, manager, New London; H. E. Meverden, manager, Oconto; W. A. Flatley, manager, Oconto Falls; Ed Ledvina, manager, Shawano; L. R. Meverden, manager, Sturgeon Bay; Ed McCormick, manager, Waupaca; E. P. Parish, district commercial agent, Appleton; R. J. Printup, district commercial agent, Appleton; L. LaChappelle, commercial agent, Green Bay; Elmer Tennis, collector, Green Bay; John B. Dockery, collector, Green Bay; Peter Shea, wire chief, De Pere; Harold Brooks, wire chief, Green Bay; George Wittey, assistant wire chief, Manitowoc; F. H. Larkin, wire chief, Marinette; Henry Verway, repairman, Kewaunee.

The Eau Claire meeting was also attended by the following:

P. J. Skolsky, district manager, Eau Claire; J. E. Bonnel, manager, Eau Claire; W. F. Hallfrisch, manager, Superior; L. H. Dodge, manager, La Crosse; F. L. Schoenhofen, manager, Chippewa Falls; G. R. Howe, manager, Menominee; D. U. Parkinson, manager, Ashland; E. P. Kelley, manager, Hudson; E. L. Dexter, manager, Merrill; Wm. Pitman, manager, Stanley; E. Schultheis, manager, Washburn; A. L. Wilmot, manager, Bayfield; W. W. Wilcox, manager, Hurley; W. S. Powell, manager, Stevens Point; W. P. Hyland, commercial agent, Superior; H. F. Fowler, district commercial agent, Eau Claire; J. V. Young, district wire chief and service inspector, Eau Claire; J. F. Burns, district plant clerk, Eau Claire; F. J. Baker, commercial agent, Superior; A. Curry, commercial agent, Superior; George J. Stangl, wire chief, Superior; George E. Ash, commercial agent, La Crosse; F. J. Wiggert, wire chief, La Crosse; M. A. Mattison, wire chief, Menominee; W. R. Anderson, wire chief, Chippewa Falls; C. N. Culbertson, wire chief, Eau Claire; M. T. Whelihan, commercial agent, Eau Claire; R. B. Richter, commercial agent, Eau Claire.

Fire at Bellevue, Mich.

By L. J. Currie, District Foreman.

About 10 p. m. Saturday, February 14th, fire broke out in the building adjacent to our exchange quarters at Bellevue, Mich., and, owing to the fire engine becoming disabled at the outset, rapidly spread through the entire block of wooden buildings. As soon as it became known that the fire equipment could not be used, our night operator, Donald Grinnell, immediately began calling for volunteers with buckets to help save adjoining property. This he continued to do until the flames entered the operating room and Manager Newell Jarvis had to cut loose the switchboard in order to save it. Mr. Jarvis barely had time to call District Manager B. R. Marsh at Lansing, to notify him of the trouble, so quickly did the flames envelop the entire structure. The switchboard, pole changer and a few records were all that escaped the flames.

The manager immediately established a toll station at the hotel booth and made a complete report of the loss to the district manager who made the necessary arrangements for help and material to be on the ground in the morning. There are



TRAFFIC TEAM.

Left to right, upper row: Conway, McLaughlin, Allen. Lower row: Smith (Capt.), Kingman.

no trains to Bellevue on Sunday, so it was necessary for Mr. Marsh and myself to take the 1:15 a. m. train to Battle Creek where we were met by a sleigh loaded with No. 17 copper-clad wire batteries, switchboard cable, etc.

The fifteen-mile ride to Bellevue on one of the coldest nights of the winter over terribly drifted roads is an experience that will not soon be forgotten, as we did not arrive at the scene of the disaster until 6 a. m., Sunday. Manager Lampman and Repairman Dell of Charlotte then arrived, after a fourteen-mile drive, to assist in the work of restoring service.

In spite of the hour and the fact that nearly all of the male inhabitants of the village were still tucked in bed after their night's exertion, Mr. Marsh began hunting property owners and had soon made arrangements for new quarters about a block from the old address and nearer the center of the town.

The Bellevue exchange has 165 stations served by sixty-seven lines. As about 200 feet of the 100-pair cable back of the old office was completely destroyed, it was necessary to bring all of these working lines by twisted-pair wire to the new office. This work was handled by the men from the Charlotte and Battle Creek offices while the writer was completing the inside work. Although a blinding snow storm set in the men outside completed their work with the aid of lanterns and at 7:30 p. m. Sunday, which was just twenty-one hours after the service stopped, we started giving service at the new office. The few stations on which we were unable to make a test that night were connected up the next morning.

Cable and supplies of all kinds began to arrive Monday for the permanent installation which is now completed.



A. T. & T. TEAM.

Left to right, upper row: Hawkins, Benzing, Gorlin. Lower row: Lillis (Capt.), Engstrom.

BELL·TELEPHONE·NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY.
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
A. BURT, *Vice President and Treasurer*
H. F. HILL, *Vice President*
W. I. MIZNER, *Secretary*
L. G. RICHARDSON, *General Counsel*
B. S. GARVEY, *General Auditor*
J. G. WRAY, *Chief Engineer*
CLIFFORD ARBICK, *Manager Publicity Department*

W. RUFUS ABBOTT, *General Manager*,
Chicago, Ill.
H. O. SEYMOUR, *General Manager*,
Milwaukee, Wis.
ALLARD SMITH, *General Manager*,
Cleveland, Ohio
A. VON SCHLEGEL, *General Manager*,
Detroit, Mich.
H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

MAY, 1914.

Employees' Benefit Fund

An audit of the receipts and disbursements of the Employees' Benefit Fund for the year ending December 31, 1913, discloses the following interesting facts pertaining to the companies composing the Central Group of the Bell System:

The original appropriations of the companies amount to \$880,000

Disbursements:

There was paid out during the year on account of pensions, accidents, sickness, life insurance and disability expense (accidents) 182,332

Balance 697,668

Receipts:

Interest at 4% \$ 32,402
Appropriations made by companies to restore fund to original amount 149,930
182,332

Cash on hand December 31, 1913 \$880,000

The companies have borne all the expenses of administration.

Some important changes have been made in the plan looking to an extension of the benefits. These and the detailed report of the operation of the fund in the various companies appear elsewhere in this issue.

The Board of Directors has established a rule, effective January 1, 1914, which requires that every officer or employee who becomes seventy years of age shall be retired from the employment of the company at the end of the month in which he reaches that age. Pensions will be granted to those persons retired by the operation of this rule who are eligible to pensions under the plan at the date of retirement.

The segregation of interests between the American Telephone and Telegraph Company and the Western Union Telegraph Company made advisable the cancellation of the contract for Interchange of Benefit Obligations under the provisions of Section 10 of the Plan.

The experience of the past year is a source of congratulation to those for whose benefit this fund was established. Distress and anxiety have been relieved and the beneficent purposes for which the fund was instituted have been achieved. The successful operations of the initial year should serve to bind the companies and the employees more closely together and they emphasize the fact, if emphasis be necessary, that this good accomplished was possible only on account of private ownership and management of the great telephone interests of the Bell System and that change to government ownership will effectually and permanently destroy this beneficial and protective fund.

As to Government Ownership

The question of government ownership of telephone and telegraph lines is one of vital importance to every employee of the Bell System.

In agitating the question the advocates of the scheme have based their arguments upon statistics that are so glaringly erroneous and so palpably misleading that anyone familiar with practical telephone operation can with but slight effort refute them convincingly.

It is the duty of everyone in the employ of the Bell System to familiarize themselves with the claims that are being made by the pro-government ownership advocates with the purpose in view of contradicting false impressions that may get lodgment in the mind of the public unless sane, sound arguments against the proposition are forthcoming from our people. Such arguments and information are expected of us by the public.

Under private ownership higher salaries prevail and sick benefits, death benefits, accident indemnities and pensions are provided for. Merit is the stepping-stone to preferment. Individual initiative is encouraged and recognized and aptitude and efficiency are rewarded.

Experience shows that government ownership spells stagnation, inferior service, lack of incentive, low salaries and no pension or insurance protection. Insecurity of tenure, due to constantly changing political conditions, and promotion through pull rather than as a recognition of duty well performed, are grave questions for every Bell man and woman to consider.

The Publicity Department is prepared to furnish pamphlets giving facts and figures showing the fallaciousness of the claims made for government ownership and THE NEWS earnestly hopes that its readers in all branches of the service will realize the importance of this subject—just what it means to them—and ask for full information regarding it.

This Is Service

A customer described in a local paper as a "portly gentleman" walked into the commercial office of the Michigan State Telephone Company at Petoskey, Mich., one afternoon a few weeks ago. The time was six minutes to five. The portly gentleman wanted to talk to his office in Cleveland, Ohio, if the operator could get it before five o'clock. Miss VAN GORDER, the bookkeeper who was on duty at the office, said she would try. She did try. BEULAH STRADLING, a toll operator, handled the call and she put the portly gentleman's call through in just three and three-quarter minutes.

The distance from Petoskey to Cleveland is about 500 miles. That is, this is the distance by rail. But, as the Petoskey Evening News put it, the real distance from Petoskey to Cleveland is three and three-quarter minutes.

Three and three-quarter minutes may not be the record for speed in putting up 500-mile connections. It was not essential to the credit due Miss VAN GORDER and Miss STRADLING that it should be. But they rose to an emergency. Therein lies the merit of their performance.

There is nothing the higher officials of our companies take more pleasure in commending and nothing which this publication takes more pleasure in recording than the instances in which the men and women in the organization make extraordinary use of their opportunities. These opportunities are bound to come to every one of us sooner or later.

So Say We All

"A well equipped and efficiently administered health department costs money," says the Chicago Department of Health, "but it is far cheaper in the end for the people than is a half equipped, poorly administered service. The fact is that good public service cannot be had without paying for it, and such service is always worth all it costs."

Applied to telephone service, this is a fact which ought to be more generally recognized, especially by many doubtless well-meaning people who are perpetually calling for good service at less cost.

Save the Nickels

Remember that it takes the hardest kind of work on the part of a dollar to earn a nickel in a year.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

Spring Fancies

"In the spring a young man's fancy lightly turns to thoughts of love." So says Tennyson, and we have no reason to doubt the truth of the statement. In this case we are sure there is as much truth as poetry.

But is this not as true, though possibly not quite as poetic? In the spring a young girl's fancy lightly turns to thoughts of clothes. We would not hint that she doesn't also respond to thoughts of love. Our June wedding page last year is proof enough that she is quite susceptible, too. But mixed with this spring fancy which "lightly turns to thoughts of love" is a pretty serious meditation on "what shall I wear?" Probably it is in the spring atmosphere, for Tennyson says, "In the spring a livelier iris changes on the burnished dove" and every girl longs to lay aside the dull winter gowns and vie with nature in dressing herself in gay attire.

Unfortunately a "light fancy" won't suffice to get one into suitable spring dress, however, and we imagine that many serious faces are bent over the fashion plates these days or look with wonder at the garments "fearfully and wonderfully made" which adorn the shop windows.

For this reason we feel pretty sure that our girls will open their BELL TELEPHONE NEWS with more eagerness when this May number appears, and we almost know they will turn to the fashion page first of all. And if in this spring search for possible fashions of things that can be made at home, our girls find a suggestion in the patterns offered, it will pay for any trouble spent in securing this new feature.

Telephone Work Not Injurious to Operators' Eyes

By Le Roy Thompson, M. D., Chicago.

A large percentage of eye trouble to which the human race falls heir is traceable to many different causes. Among the most prominent in the business world are abnormality in the shape of the eye itself, resulting in an imperfect optical instrument; continuous use of the eyes for near work without intervals of relaxation and improper illumination of work rooms.

As evening manager of one of the largest telephone exchanges in Chicago for four years I had an opportunity to study and observe the effects of telephone

switchboard operating on the employees' health, with particular reference to the eye, and have come to the definite unbiased conclusion that they are not injured by such work.

Where symptoms such as headache, insomnia, vertigo or other forms of nervousness appear, we found that it was due to some abnormality in the operator's eyes themselves, which would have given trouble had she been employed at any of the other ordinary girl occupations of today. The recovery was prompt when proper glasses were fitted by an oculist or treatment instituted where it was necessary.

suffers only a slight abnormality. I think the efficiency of such an examination is aptly illustrated by what I saw on a visit to an exchange the other day.

One group of twenty-seven girls, all active, healthy looking specimens of young womanhood, and not one was wearing glasses. Another group of nineteen and only three wearing glasses. Go into any large office and look over the clerical force, and you will be astonished at the number who are forced to seek the assistance of glasses in their work.

The telephone operator sits facing the switchboard, with her face approximately sixteen inches away, measurement taken at the level of the eye. The maximum distance at which she uses her eyes when reaching to complete a call or pick it up is twenty-nine inches. When answering a call or completing a connection she uses her focusing eye muscle only three to five times and never twice at the same distance consecutively.

This point cannot be emphasized too strongly, as the varying distance, even though not far enough for complete relaxation to take place, is nevertheless enough change to rest the eye much more than in many other occupations.

Compare the work done by type setters, bookkeepers, stenographers and draftsmen and you can readily see how much more relaxation a telephone operator has

than any of the others who continuously apply themselves to their given occupation, which is all practically at the same distance from the eye.

The signal lamps, the strongest of which is less than one candle power, have a protecting cover, or opal as it is called, made of glass which is semi-transparent. They measure nine millimeters across at their greatest diameter and six millimeters thick, being made in three colors, white, red and green. These opals amply protect the eye from ultra-violet or chemical rays. Heat, of course, is not a factor worth consideration from so small an amperage and candle power.

Telephone operators are not subjected to as much eye strain as the average clerk. Conditions which are apt to be blamed on the occupation have been absolutely proven to clear up after the eye condition was treated and glasses fitted where necessary, the operator continuing at the same occupation under exactly the same working conditions as before.



BLUE BELL CLUB GIRLS, CLEVELAND.
Who served tea in Japanese costume at Y. W. C. A.

One observation that I would like to draw special attention to is, a telephone girl is like any other girl, she dislikes to wear glasses, and this fact combined with an attending family physician's neglect or ignorance prevents many girls from getting prompt relief from her otherwise improperly diagnosed sickness, which really had its origin in eye strain.

As oculist and aurist for the Chicago Telephone Company and chief physician for the Employees' Benefit Association for the past three years, having practically all cases of sickness among the employees come under my observation, I have been enabled to continue accurate investigation in occupational diseases or physical strain which was begun while actively associated as manager.

Before a girl is taken into the employ of the Telephone Company she is given a physical examination and her eyes are examined as far as practical vision is concerned. Of course this keeps out many who would otherwise succumb to eye trouble of one kind or another, but it is impossible to eliminate everyone who

Social Evening at New Telephone Exchange of Western Union

A pleasant social event took place at the Western Union Telegraph Company Building, Chicago, on the evening of April 11th, when the girls of the telephone department opened their fine new office. The orchestra rendered soft music during the entire evening.

A number of the officials of the Western Union and the Chicago Telephone Company were guests and each girl acted her part as hostess and did her best to entertain and give everyone a hearty welcome.

The Misses Goggin and Richford, night and day chief operators of the Wabash exchange, sent a handsome bouquet of roses in compliment to the girls.

As evidence of good feeling and interest, the officials of the western division of the Western Union treated the girls and their supervisors to an elaborate repast, which was appreciated and enjoyed by all who participated.

While refreshments were being served, the officials representing the various departments of the Western Union and Telephone Company offered toasts and congratulations. Mrs. M. S. Moffatt, in the absence of chief operator, E. T. Jones, who was unable to spend the entire evening with guests, responded. C. H. Finley, city traffic superintendent, in his address, pointed out the importance of co-operation and of good feeling which should exist between the supervisors and the operators, chief operators and assistant chief operators. A. B. Cowan, district commercial superintendent, paid a fine tribute to the girls and mentioned the fact that the commercial department secured the business and the girls of the telephone department were to be congratulated on the way they kept it. Jay R. Page, Chicago plant superintendent, also expressed his congratulations and pleasure at being present, and said that the plant department would be glad to assist the girls in their work. Mr. Zelinski representing the Chicago Telephone Company, was enthusiastic at the progress of the telephone department and spoke of the elegance of the new equipment. Mr. Zelinski has always shown great interest in the telephone department and has been closely in touch with it since it was first opened. Mrs. Moffatt, assistant chief operator, in charge of the telephone department, responded for the girls, thanking all for their interest and good wishes, as well as co-operation in all their work, and said that she was sure the employees of the telephone department would do their utmost to show their appreciation of the new quarters, and the interest the officials had taken in making the new quarters so attractive.

The cut-over which was successfully made later in the evening turned the scene of a delightful social event into a business office.

A description of the equipment may be found on another page of this issue.

Operator Summons Help

Leoti Kocher, a telephone operator at Marion, Ind., was of material assistance in bringing aid to J. M. Fowler, well known citizen and manager of the Marion Planing Company, who was stricken a short time ago with paralysis on the right side when at his mill. The telephone showed by the light in the central office that the receiver was off at the planing company's office. Miss Kocher informed Mrs. Fowler, who had attempted to call her husband, that an

investigation most likely should be made since the receiver was down.

An employee of the planing mill was directed to go to the mill and see if anything had befallen Mr. Fowler. Arriving at the office of the planing company about 7:30 o'clock the employee found Mr. Fowler on the floor of the office unable to speak.

Telephone Service and Patrons

Probably we make our full share of complaints of poor telephone service. If four or five times out of a hundred or more during the day that we use the telephone some hitch occurs we are outraged. Unless we get pretty close to 100 per cent. efficiency of service we feel like roasting everybody connected with the exchange.

We do not know just what per cent. of efficiency is expected of a telephone company, but probably if every other business had as few mistakes, comparatively, we should feel fairly well satisfied. But there is nothing easier to complain of than telephone service, unless it is the postal service. As an example of the way human nature deals with this feature of modern life we may cite the following instance reported from Chicago:

A man on a "two-party" telephone line recently complained to the company he never could use his line because the other fellow on the wire was always using it.

The company established a three days' "supervision" of both instruments. It found that in this period the complainant used his telephone fifty-one times, the longest call being thirty-three minutes, while the man complained of used his telephone just eight times, the longest call being six minutes.

And if we must kick on the service let us do it sulphurously in the ear of the operator, who gets paid an enormous salary to listen to just such language.—*Daily News*, Beloit, Wis.

Appreciation from Quincy

That the efforts of the Quincy operating forces are appreciated by the Quincy public is indicated by the following letter received from the Long Commission Company:

Miss Agnes Heckenkamp, % Bell Telephone Co., City.

Dear Miss Heckenkamp:—We are sending herewith by messenger a little token of our appreciation for excellent services rendered us by yourself and associates in the Bell Office. Please accept same with our compliments. Very respectfully,
LONG COMMISSION COMPANY.

Manager Halligan and traffic chief Dunham, as well as Miss Mitchell, chief operator, and Miss Coens, chief toll operator, are to be complimented for the excellent service being rendered in Quincy.

An Early Visit to Columbus Exchange

A well-known Columbus, Ohio, man was talking not long since about earlier times in Columbus when the telephone traffic was not large and did not require the large force it does today.

"When I was in the university here," he said, "a friend from a small town near here came to see me on a visit. Being acquainted with the manager of the telephone company, I took my friend up to his office and the manager offered to show us about the exchange. There were about half a dozen girls operating the switchboard in those days, but the plant was a thing of awe and wonderment to my small-town friend. As we passed the girls on duty it happened that each

had a call from a subscriber in the order in which they sat, and thinking they were saying 'Hello' to him, my friend doffed his hat very politely to each one and answered back cordially 'How-do-you-do.'"

This was about the year 1880. The exchange then had only a few hundred subscribers. Today Columbus has more than 22,000 telephones and the operating force numbers more than 400.

The Results of Advertising

A telephone company operating in one of the rural districts of New York state, recently complained that a telephone on one of their party lines was giving trouble and that it was impossible to hear any conversation from this instrument.

An inspector sent out to investigate found that the farmer, in whose home the telephone was installed, would always stand out from the instrument, when talking, as far as the receiver cord would let him go.

When remonstrated with, he replied, "Why, I thought that was the right way to use it. It's advertised as one of them long distance telephones, and I got away as far away as I could."—*Western Electric News*.

Card of Thanks

The following card of thanks sent to "The Young Ladies of the Central Union Telephone Co., Dwight, Ill.," was fully appreciated by the chief operator, Miss Dennehy, and all of her assistants:

Dear Young Ladies:—

In behalf of my Mother, my Sister and Myself, I desire to express to you our sincere appreciation of and gratitude for your prompt, efficient, kind, courteous and sympathetic attention to our calls, so important to us, both before and after our dear Mother was called home.

I told Mother how hard the young lady was working to get Clare Baker, the nurse, for us, and she, too, felt especially grateful, as reaching her and getting her to come meant so much to all of us.

Although I do not know just which one of you girls, personally, took care of our different calls, you have all been so lovely to us in our trouble and sorrow, my sister and I feel a sincere gratitude and friendship for you.

MARY E. DUNLAP.

La Salle Operators Entertained

On Saturday evening, February 28th, Mr. Lucas, proprietor of the Hub Clothing Company of La Salle, Ill., as a mark of his appreciation for efficient service rendered, entertained the operators and young lady clerks of the Central Union Telephone Company at a theater party at the La Salle Theater.

Those who were unable to attend the Saturday evening performance were entertained Sunday afternoon. Each one was presented with a Russian leather pocketbook.

Supreme Confidence

That the people of Terre Haute, Ind., have implicit confidence in each other was portrayed recently when Collector George Brown found the following note pinned on the front door of the residence of one of the subscribers: "Phone collector: Money under door." Looking under the door, the collector found three fifty-cent pieces wrapped in a piece of paper.

Glad to Accomodate

A woman subscriber at Merrill, Wis., asked an installer to give her instead of a wall set "one of those hand telephones that I can carry around with me."

Operator Rises to Emergency

Sadie Marshall, an evening supervisor at Broad office, Cleveland, recently received a very appreciative letter from Mrs. H. L. Francis, 1628 Harvard avenue, a subscriber at Broad office, thanking her for the prompt and efficient service she received on March 7th, when she attempted to call a physician for her child, which was suddenly taken very ill. Mrs. Francis became so prostrated with fear that she was unable to find the doctor's number in the directory, so asked the operator to come to her aid. The operator called the supervisor's attention to the case, and with her assistance the doctor was located in time to save the baby's life. Mrs. Francis writes in part: "Any company may feel very content who have people of your spirit and vim and also the determination to SERVE. I wish for you reward heaped upon you as you go."

Exchange of Exchanges

Ypsilanti, Mich.:

Subscriber: "Say, Central, how do you spell famous?"

The operator referred the call to Information, and the subscriber explained that she and her husband were writing a letter and just couldn't remember how that word was spelled.

Port Huron, Mich.:

New operator, a trifle nervous: "Beg pardon, I punched your button by mistake."

A subscriber asked for the number of some plumbing firm. Information gave him a number, but he said, "That is not the one. I want the man who was here yesterday. You ought to have a record of all calls made."

Frankfort, Ind.:

A subscriber called from a neighbor's telephone—"Central, you do not answer me from home; my number is —."

Operator: "Your telephone is out of order; the light does not come in."

Subscriber: "Oh! all right, just ring the light plant, and I will have it repaired."

Grand Rapids, Mich.:

Operator: Number, please?

Subscriber: 267.

Operator: What office, please?

Subscriber: Main, Main, M-A-I-N, Double Q, Double M—MAIN 267. Did you get it?

A subscriber called a number that had been discontinued. The student, not being familiar with her phrases, said: "Why—a—a—please refer to your dictionary."

Information Operator: "This is Information."

Subscriber: "Have you got a man down there who kills cats that you can send up here on Paris avenue?"

Legal Department, Chicago:

Chief Clerk: "Take this to Mr. Uprichard's office."

New office boy: "Is that on the fourteenth floor, auditor of disturbances?"

Eau Claire, Wis.:

Subscriber: "Has Mr. Jones got a telephone?"

Operator: "What Mr. Jones do you mean?"

Subscriber: "The one that died last fall."

FOR THE GIRL WHO SEWS

ANNOUNCEMENT

It is with great pleasure that the BELL TELEPHONE NEWS announces the establishment of a Department of Fashions. We expect each month to illustrate for the benefit of our girl readers a few garments or costumes together with suggestions as to the materials to use in making, trimmings, etc. The styles to be shown come from sources of unquestionable authority and the reader who follows them is assured that they will be correct and up-to-date.

In connection with this service we have arranged with one of the leading pattern houses of the United States to supply patterns for all the garments shown. These patterns will be furnished to our girls at ten cents each, and may be obtained by addressing "Fashion Department, BELL TELEPHONE NEWS, 212 West Washington Street, Chicago, Ill.," enclosing ten cents for each pattern ordered. Pattern will be sent promptly and should be received within a few days.

BLOUSE WITH LONG OR THREE-QUARTER SLEEVES

The blouse with Normandy collar is a very new one, very smart and very attractive. This one is made from organdie which is the latest cry and which makes the daintiest possible blouses. The model can be used, however, for any seasonable material, the crêpe de chine that will be



8244. A Very Dainty Blouse.

worn all summer quite as well as the cotton and linen ones. Cotton crêpe makes up most attractively and is extremely

smart and the voiles of the season are unusually attractive for there are a great many shown in embroidered figures as well as the plain material. The combination of the raglan sleeve at the front and the kimono at the back is especially smart. This blouse is all white but touches of color are fashionable and white voile or cotton crêpe for the blouse with the collar and cuffs of yellow or cerise would be charming or the blouse could be made of color with trimming of white.

For the 16-year size, the blouse will require 2½ yds. of material 27, 1½ yds. 36, 1½ yds. 44 in. wide.

The pattern 8244 is cut in sizes for 16 and 18 years. It will be mailed to any address by the Fashion Department of this paper, on receipt of ten cents. Order by pattern number and specify size.

FASHIONABLE LOOSE FITTING FANCY BLOUSE

Such simple full blouses as this one are to be much worn this season and they are made from crêpe de chine, chiffon, and net to be dressy and dainty and they are made from plainer and simpler materials for every day use. This one is very pretty, generally becoming and, withal, extremely easy to make. There is no fitting, since all the fashionable garments are loose, and there are only under-arm seams. The sleeves can be joined with a



8224. A Fashionable Loose-Fitting Blouse.

plain seam or beneath a tuck or the joining can be made an excuse for a little trimming or banding. They can be extended to the wrists and finished with frills or cut off at the elbows and finished with cuffs. As shown here, the blouse is made of crêpe de chine with frills of the same.

For the medium size, the blouse will re-

quire 3 yds. of material 27, 2½ yds. 36, 1½ yds. 44 in. wide, with ¾ yd. of ruffling.

The pattern of the blouse 8224 is cut in sizes from 34 to 42 inches bust measure. It will be mailed to any address by the Fashion Department of this paper, on receipt of ten cents. Order by pattern number and specify size.

THE EVER NEEDED ODD BLOUSE

It is quite impossible to get through the summer season without odd blouses, however much entire costumes may be needed. This one is very dainty and charming and shows a new line. The sleeves in raglan style extend to the neck edge and the plain space allows the effective use of trimmings while, if a simpler



8132 Fancy Blouse, 34 to 44 bust.
8120 Two-Piece Skirt, 22 to 32 waist.

blouse is wanted, the tucks alone make a sufficient finish. This one is made of white cotton crepe with trimmings of lace and the skirt is of serge. The skirt is made in just two pieces with extensions that are laid in jabot like plaits at the sides. A pretty effect could be obtained by making the skirt of heavy material and the blouse of thin in matching color or of white with collar and cuffs to match the skirt, for color is a feature of the season and color on white is extremely pretty.

For the medium size, the blouse will

require 3½ yds. of material 27 in. wide, 2½ yds. 36, 1½ yds. 44, with 1 yd. of wider and 5 yds. of narrow banding; the skirt 3½ yds. 36, 2½ yds. 44 or 52 in. wide.

The pattern of the blouse 8132 is cut in sizes from 34 to 44 inches bust measure; of the skirt 8120 from 22 to 32 waist. They will be mailed to any address by the Fashion Department of this paper, on receipt of ten cents for each. Specify size.

CREPE GOWN WITH TRIMMING OF SATIN

All the crepe finished materials are fashionable and they are exceedingly beautiful trimmed with satin. This gown



8176 Semi-Princesse Gown,
34 to 40 bust.

shows the material in silk and wool, a mixture that produces a fabric sure to give good lines and graceful folds. The gown is one of the newest and prettiest. The drapery at the sides gives a suggestion of breadth at the hips yet the box plait effect at the front gives a suggestion of slenderness. A smart combination could be made by using plain taffeta for the gown proper and flowered taffeta for the trimming, or plain and flowered crepe could be combined in the same way whether the crepe is silk or cotton. A tan colored gown with brown trimming would

be handsome and all the brown shades are greatly in vogue.

For the medium size, the gown will require 5½ yds. of material 27, 4 yds. 36 or 44 in. wide, with 1½ yds. 27 in. wide for the trimming, ¾ yd. of banding.

The pattern of the gown 8176 is cut in sizes from 34 to 40 inches bust measure. It will be mailed to any address by the Fashion Department of this paper, on receipt of ten cents. Specify size.

A FASHIONABLE GOWN IN TUNIC EFFECT

Not alone tunics but tunic effects are fashionable and this very charming gown is trimmed with ruffles to give just the



8200 Semi-Princesse Gown,
34 to 40 bust.

fashionable flare and the newest line. It is very charming, very graceful and, while in the picture it is made from one of the pretty flowered crêpes, the design can be utilized for a great variety of materials. Taffeta would be charming or silk crêpe would be pretty with taffeta trimming or any one of the silk and wool mixtures could be used if something a little heavier is wanted, while for the still simpler summer gown could be used crepe voile or other cotton fabrics of similar sort. The skirt is made in two pieces and the blouse is quite novel with a yoke that extends

to form part of the sleeves, so giving the Japanese lines while there is variety in the shaping.

For the medium size, the gown will require 6 yds of material 27, 5½ yds. 36, 4¾ yds. 44 in. wide, with 2¾ yds. of ruffling for the neck and sleeves or ¾ yd. of lace 3 in. wide for the chemisette.

The pattern of the gown 8200 is cut in sizes from 34 to 40 inches bust measure. It will be mailed to any address by the Fashion Department of this paper, on receipt of ten cents. Specify size.

Reports of Employees' Benefit Fund Committee

Chicago Telephone Company,
Wisconsin Telephone Company,
Central Union Telephone Company,
The Cleveland Telephone Company,
Michigan State Telephone Company.

To Employees:

In compliance with the provisions of the Plan for Employees' Pensions, Disability Benefits and Insurance, an audit of the receipts and disbursements of the Employees' Benefit Fund for the year ending December 31, 1913, has been made, and a certificate of audit appears at the conclusion of the following annual statements, which are submitted as the first annual report of the Benefit Fund Committee:

CHICAGO TELEPHONE COMPANY.

Original appropriation made by the Company to establish Employees' Benefit Fund.....\$400,000
Payments for the year 1913:
Pensions\$ 360
Accidents 17,789
Sickness 76,548
Life Insurance 3,850
Disability Expense (Accidents) 6,871 105,418
\$294,582

The above payments cover total of 2,264 cases, about 17.8 per cent. of the average number of 12,685 employees having participated in the benefits during the year. The expense of administration was paid by the Company, and was not charged to the Fund.
Interest at 4 per cent. added to Fund.....\$14,220
Appropriation made to restore Fund to original amount... 91,198 105,418

Amount of Fund January 1, 1914....\$400,000

WISCONSIN TELEPHONE COMPANY.

Original appropriation made by the Company to establish Employees' Benefit Fund.....\$100,000
Payments for the year 1913:
Pensions\$ 1,366
Accidents 3,070
Sickness 7,408
Life Insurance 563
Disability Expense (Accident) 1,320 13,727
\$86,273

The above payments cover a total of 293 cases, about 7.5 per cent. of the average number of 3,909 employees having participated in the benefits during the year. The expense of administration was paid by the Company, and was not charged to the Fund.
Interest at 4 per cent. added to Fund.....\$ 3,771
Appropriation made to restore Fund to original amount... 9,956 13,727

Amount of Fund Jan. 1, 1914.....\$100,000

CENTRAL UNION TELEPHONE COMPANY.

Original appropriation made by the Company to establish Employees' Benefit Fund.....\$180,000
Payments for the year 1913:
Pensions\$ 240
Accidents 7,323
Sickness 10,999
Life Insurance 16,446

Disability Expense (Accidents) 2,852 37,860
\$142,140

The above payments cover a total of 386 cases, about 4.3 per cent. of the average number of 8,977 employees having participated in the benefits during the year. The expense of administration was paid by the Company, and was not charged to the Fund.
Interest at 4 per cent. added to Fund.....\$ 6,751
Appropriation made to restore fund to original amount... 31,109 37,860
Amount of Fund Jan. 1, 1914.....\$180,000

THE CLEVELAND TELEPHONE COMPANY.

Original appropriation made by the Company to establish Employees' Benefit Fund.....\$ 50,000
Payments for the year 1913:
Accidents\$ 1,349
Sickness 4,259
Life Insurance 685
Disability Expense (Accidents) 196 6,489
\$43,511

The above payments cover a total of 161 cases, about 7 per cent. of the average number of 2,291 employees having participated in the benefits during the year. The expense of administration was paid by the Company, and was not charged to the Fund.
Interest at 4 per cent. added to Fund.....\$ 1,912
Appropriation made to restore Fund to original amount... 4,577 6,489

Amount of Fund Jan. 1, 1914.....\$50,000

MICHIGAN STATE TELEPHONE COMPANY.

Original appropriation made by the Company to establish Employees' Benefit Fund.....\$150,000
Payments for the year 1913:
Pensions\$ 120
Accidents 3,832
Sickness 10,371
Life Insurance 2,386
Disability Expense (Accidents) 2,129 18,838
\$131,162

The above payments cover a total of 294 cases, about 4.7 per cent. of the average number of 6,196 employees having participated in the benefits during the year. The expense of administration was paid by the Company, and was not charged to the Fund.
Interest at 4 per cent. added to Fund.....\$ 5,748
Appropriation made to restore Fund to original amount... 13,090 18,838

Amount of Fund Jan. 1, 1914.....\$150,000
EMPLOYEES' BENEFIT FUND COMMITTEE,

W. I. MIZNER, Secretary.

CERTIFICATE OF AUDITOR.

I hereby certify that the receipts and disbursements, as above summarized, do, in my judgment, conform to the provisions of the plan adopted, and that all the disbursements have been authorized by the Committee and receipted for by, or on behalf of, the payees.

C. S. BIGELOW,
Traveling Auditor for the American Telephone and Telegraph Company.

REVISION OF PLAN.

The year's experience has brought to light a number of matters in regard to which there has been some misunderstanding of the exact intent of the plan and has indicated that the benefit provisions of the plan can properly be extended in some respects. A careful study of all these points has been made, and as a result, the Board of Directors recently adopted revised regulations for the administration of the Fund to take effect May 1, 1914. These revised regulations are now being distributed to employees and an examination will indicate that the

principal points covered in the revision are as follows:

(1) A provision has been added under which a disability pension may, at the discretion of the Committee, be paid to any employee of fifteen years' service or more who becomes totally disabled as a result of sickness. (Section 5, Paragraph 1c.)

(2) The provision that a pension may be continued to dependent relatives for not over three months after end of month in which pensioner dies has been changed to permit such payments for not over twelve months, but the total amount paid in any case is not to exceed \$2,000. (Section 5, Paragraph 4.)

(3) Benefits may be paid to persons who serve the Company on a "part time" basis, provided they are regular employees of the Company, but the minimum pension of \$20 a month does not apply to such cases. (Section 5, Paragraph 2.)

(4) Accident Disability Benefits have been revised to provide (a) that benefits in cases of total disability shall not be limited to a term of six years, as in the original text of the plan, but shall continue during life if the total disability continues that long, and (b) that payments in cases of partial disability shall be based upon impairment of earning capacity. (Section 6, Paragraph 2.)

(5) In case of death of an employee, if the beneficiaries under the plan (other than wife, children or issue of deceased children) are only partially dependent upon the deceased employee, there shall be payable such part of the total death benefit as is proportionate to the degree of dependency, as determined by the Committee. (Section 8, Paragraph 3—Third.)

(6) Burial expenses will be paid, in addition to death benefits, in cases of death resulting from accident in the performance of duty. (Section 8, Paragraph 1.)

(7) Detailed provisions regarding leave of absence and temporary lay-off have been included in the revised regulations. (Section 9, Paragraphs 5, 6 and 7.)

(8) The text of the plan has been rearranged and its phraseology revised with a view to greater clearness. Particular attention is called to the substitution of the expression "Death Benefits" for the term "Life Insurance," which was used in the original text of plan. This change was made to emphasize the fact that the benefits provided in the plan should not be considered as a substitute for regular life insurance. It should be clearly understood that eligibility to death benefits ceases when an employee is pensioned or leaves the service and that in any event the death benefits are payable only to a wife or dependent relatives—that is, a beneficiary, other than a wife, must be dependent and must be a relative.

RETIREMENT AGE.

The Board of Directors has established a rule, effective January 1, 1914, which requires that every officer or employee who becomes seventy years of age shall be retired from the employment of the Company at the end of the month in which he reaches that age. Pensions will be granted to those persons retired by the operation of this rule who are eligible to pensions under the plan at the date of retirement.

CANCELLATION OF CONTRACT WITH WESTERN UNION TELEGRAPH COMPANY.

The decision of the American Telephone and Telegraph Company to dispose of its interest in the Western Union Telegraph Company has made advisable the cancellation of the Contract for Interchange of

Benefit Obligations which was made between the two companies under the provisions of section 10 of the plan and under which employees of this company have been given credit for prior service in the Western Union Company. By agreement between the companies the contract has, accordingly, been cancelled as of May 1, 1914, subject to the following conditions:

(1) The cancellation of the contract shall not affect the term of employment of any employee of the telephone or telegraph system who does not change from one system to the other after May 1, 1914.

(2) Employees of the telephone or telegraph system who change from one system to the other after May 1, 1914, shall not receive credit for previous service except in the following cases:

(a) Employees who have been transferred from one system to the other since January 1, 1910, may at any time prior to May 1, 1915, be re-transferred to the system in which they were formerly employed without loss of credit for service.

(b) Employees who have been transferred from one system to the other since January 1, 1910, in connection with joint operating arrangements may be re-transferred, without loss of credit for previous service, at any time during the continuation of the particular joint operating agreement affecting their employment.

Essential Features of the Employees' Benefit Plan

Accidents:

Any employee is entitled to benefits on account of disability from accident while in the performance of duty, regardless of length of service.

Sickness:

Any employee of two years' continuous

service or over is entitled to benefits for disability from sickness, including accidents while not in the performance of duty.

Death Benefits:

A dependent beneficiary of any employee who is killed in the performance of duty is entitled to death benefits of three years' pay not exceeding \$5,000.

A dependent beneficiary of any employee having five years' continuous service is entitled to death benefits of six months' pay, not exceeding \$2,000, in the event of death from sickness.

A dependent beneficiary of any employee having ten or more years of continuous service is entitled to death benefits of one year's pay, not exceeding \$2,000, in the event of death from sickness.

Pensions:

Employees are entitled to pensions at their own option, or they may be retired by the committee, under class "A." This class covers men sixty years of age or over, with twenty years or more of service, and women fifty-five years of age or over, with twenty years or more of service.

Employees may be pensioned under class "B" and "C" by the committee upon approval of the president. Class "B" covers men fifty-five to sixty years of age with twenty-five or more years of service, and women fifty to fifty-five years of age with twenty-five or more years of service. Class "C" covers men less than fifty-five years of age with thirty or more years of service, and women less than fifty years of age with thirty or more years of service.

The amount of the annual pension is one per cent. of the average annual pay

during ten years multiplied by the number of years in the service. No pension to be less than \$20 per month.

Example: An employee whose term of employment at time of retirement has been thirty years, and whose average pay for ten years has been \$1,500 a year, will receive an annual pension equal to thirty per cent. of \$1,500, or \$450, payable in monthly amounts of \$37.50.

EMPLOYEES SHOULD BE CAREFUL TO SEE THAT THEIR RECORD OF CONTINUOUS SERVICE IN THE BELL SYSTEM IS NOT BROKEN.

It is not necessary to resign from one Bell Company in order to work for another Bell Company; a transfer may be arranged. The only reasons recognized for breaks in service are temporary lay-offs on account of lack of work and leaves of absence. The leave of absence provision is established to meet certain unusual conditions, and an employee may obtain a leave of absence for proper cause. **MAKE YOURSELF FAMILIAR WITH PARAGRAPHS 5, 6 AND 7 OF SECTION 9 OF THE REVISED PLAN AS SOON AS POSSIBLE.**

Detailed Information Wanted

A manager in northeastern Michigan was explaining to a party of farmers what was meant by discrimination under the Giles law of Michigan, and in the course of his conversation referred to the railroad commission as being in charge of telephone rates and service. After he had finished his painstaking explanations a ruralite in the back part of the meeting place got up and asked whether it was the Grand Trunk or Michigan Central that regulated the rates and service.



District and Division Collection Rating

FEBRUARY, 1914.

	Total charges.	Total credits.	Total unpaid Feb. 28.	Pct. credits to total chgs.	Pct. cash. col. to final accts.	Stations.
1. Wisconsin Co., Appleton District....	\$ 61,735	\$ 59,281	\$ 2,457	96.	36.8	27,805
2. C. U. Co. (Indiana), Southern Dist....	41,416	39,316	2,100	94.9	30.9	19,229
3. C. U. Co. (Ohio), Columbus District....	55,730	51,639	4,091	92.6	12.1	22,897
4. Michigan Co., Detroit District....	362,147	326,877	55,270	90.2	28.	83,322
5. C. U. Co. (Indiana), Northern Dist....	61,450	55,418	6,032	90.2	22.6	26,144
6. Wisconsin Co., Madison District....	37,444	33,685	3,809	89.8	31.8	16,892
7. Wisconsin Co., Janesville District....	11,761	10,568	1,193	89.8	28.7	4,725
8. C. U. Co. (Ohio), Akron District....	70,189	61,992	8,197	88.3	26.4	24,636
9. Wisconsin Co., Eau Claire District....	35,332	31,153	4,179	88.1	16.2	14,107
10. Wisconsin Co., Milwaukee District....	188,924	164,564	24,360	87.1	38.9	68,175
11. C. U. Co. (Ohio), Chillicothe District....	36,004	31,270	4,734	86.9	34.7	19,814
12. Chicago Co., Joliet District....	29,620	25,600	4,020	86.7	28.7	9,976
13. Chicago Co., Chicago Heights Dist....	19,481	16,796	2,685	86.2	36.2	6,163
14. C. U. Co. (Illinois), Champaign Dist....	6,732	5,803	929	86.2	35.7	2,468
15. Chicago Co., Aurora District....	19,729	16,958	2,771	86.0	46.7	7,035
16. Chicago Co., La Grange District....	17,025	14,618	2,407	85.9	41.8	5,239
17. C. U. Co. (Illinois), Jacksonville Dist....	7,497	6,384	1,113	84.5	34.8	4,159
18. Chicago Co., Elgin District....	16,492	13,922	2,570	84.4	40.2	6,190
19. Chicago Co., Hammond District....	32,745	27,591	5,154	84.3	26.7	8,293
20. C. U. Co. (Ohio), Dayton District....	63,403	52,545	10,858	84.2	16.2	24,217
21. C. U. Co. (Illinois), Centralia Dist....	12,979	10,808	2,171	83.3	29.7	5,186
22. Chicago Co., City Division....	1,530,704	1,271,598	259,106	83.1	32.3	358,281
23. Chicago Co., Woodstock District....	9,872	8,081	1,791	81.9	39.5	3,541
24. C. U. Co. (Ohio), Toledo District....	62,578	50,562	12,016	80.8	12.	24,249
25. Chicago Co., Oak Park District....	40,707	32,774	7,933	80.6	43.5	10,423
26. Chicago Co., Evanston District....	47,365	37,937	9,428	80.	40.4	10,208
27. C. U. Co. (Illinois), Rockford Dist....	22,640	18,117	4,523	80.	9.7	8,076
28. Chicago Co., Waukegan District....	28,727	22,819	5,908	79.4	40.8	7,773
29. C. U. Co. (Indiana), Central District....	109,666	86,623	23,043	78.9	19.5	32,911
30. Michigan Co., Saginaw District....	46,877	36,655	10,222	78.1	14.3	15,946
31. Michigan Co., S. Ste. Marie Dist....	5,903	4,571	1,331	77.4	48.3	15,946
32. C. U. Co. (Illinois), Decatur District....	19,320	14,903	4,417	77.1	8.4	5,676
33. C. U. Co. (Illinois), Alton District....	7,419	5,693	1,726	76.7	28.	3,277
34. C. U. Co. (Illinois), Springfield Dist....	38,413	29,179	9,234	76.0	22.2	10,196
35. C. U. Co. (Illinois), Quincy District....	15,649	11,682	3,967	75.1	...	5,488
36. Chicago Co., Wheaton District....	11,954	8,895	3,059	74.4	48.2	3,786
37. C. U. Co. (Illinois), Kankakee Dist....	17,474	12,949	4,525	74.1	7.8	6,251
38. C. U. Co. (Illinois), Rock Island Dist....	32,603	23,717	8,885	72.7	8.2	10,981
39. C. U. Co. (Illinois), La Salle District....	7,354	5,299	2,055	72.0	28.2	2,623
40. C. U. Co. (Illinois), Peoria District....	57,319	40,486	16,833	70.6	14.1	15,704
41. C. U. Co. (Illinois), Galesburg Dist....	9,161	6,254	2,907	68.3	5.5	3,542
42. Michigan Co., Lansing District....	24,112	16,412	7,700	68.2	27.2	7,772
43. Cleveland Co., Cleveland Division....	213,292	143,361	69,931	67.2	28.5	59,995
44. Michigan Co., Grand Rapids Dist....	44,059	29,228	14,830	66.3	20.6	18,300
45. Michigan Co., Pt. Huron District....	23,459	15,538	7,921	66.2	21.1	6,470
46. Michigan Co., Marquette District....	43,880	29,004	14,876	66.1	35.9	9,097
47. Michigan Co., Jackson Dist....	44,617	29,459	15,158	66.	20.8	13,001
48. Michigan Co., Eastern District....	56,017	37,564	20,453	64.7	19.1	17,882
49. Michigan Co., Kalamazoo District....	45,421	29,239	16,122	64.5	22.9	15,054
50. C. U. Co. (Illinois), Paris District....	3,720	2,251	1,469	60.5	12.6	1,402
51. Michigan Co., Menominee District....	16,699	9,208	7,491	55.1	38.9	4,791
52. Michigan Co., Petoskey District....	17,075	9,393	7,682	55.	17.5	5,855
Total	\$3,843,772	\$3,136,200	\$707,572	81.6	...	1,101,420

*Quarterly rental billing.

DIVISION SUMMARY.

Wisconsin Co.	\$ 335,199	\$ 299,261	\$ 35,938	89.2	36.2	131,704
C. U. Co. (Ohio)....	287,904	243,008	39,896	84.1	19.1	115,313
C. U. Co. (Indiana)....	212,532	181,357	31,175	85.3	21.2	78,281
Chicago Co. (City)....	1,530,704	1,271,598	259,106	83.1	32.3	358,281
Chicago Co. (Suburban)....	273,717	225,991	47,726	82.6	37.5	78,692
Michigan Co.	732,845	573,209	159,636	78.2	26.0	194,195
C. U. Co. (Illinois)....	258,179	193,475	64,704	74.9	15.7	85,029
Cleveland Co.	213,292	143,361	69,931	67.2	23.5	59,995
Total	\$3,843,772	\$3,136,200	\$707,572	81.6	...	1,101,420

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent of the total charges for collection during February, 1914, are given below:

City and State.	Per cent credit.	Stations.
Columbus, Wis.....	100	872
Spencer, Ind.....	100	253
Juneau, Wis.....	100	177
Marshall, Ohio.....	100	169
Winneconne, Wis.....	100	135
Burnett Junction, Wis.....	100	77
Brooklyn, Ind.....	100	76
Linden, Ind.....	100	71
Hastings, Mich.....	100	14
Mt. Orab, Ohio.....	100	14
Sturgis, Mich.....	100	13
White Cloud, Mich.....	100	10
Elkhart, Ind.....	100	9
Plainfield, Ind.....	100	5
French Lick, Ind.....	99.7	438
Greenville, Mich.....	99.5	37
Hortonville, Wis.....	99.2	369
Vincennes, Ind.....	99.1	2,563
Jefferson, Wis.....	99.1	404
Logansport, Ind.....	99.1	59
Albion, Ind.....	99	39
Pt. Washington, Wis.....	98.9	422
Algoma, Wis.....	98.9	257
Washington, Ind.....	98.8	1,565
Auburn, Ind.....	98.6	1,066
Cliffman, Mich.....	98.6	33
Crawfordsville, Ind.....	98.5	2,886
Beaver Dam, Wis.....	98.4	1,478
Menominee, Wis.....	98.4	1,239
Hartford, Wis.....	98.2	679
Hart, Mich.....	98.2	53
Omro, Wis.....	98.1	608

Hudson, Wis.....	98.1	579
Manitowoc, Wis.....	98	1,544
Newark, Ill.....	97.8	206
New London, Wis.....	97.7	564
Cedarburg, Wis.....	97.7	195
Mayville, Wis.....	97.5	526
Ashtabula, Ohio.....	97.5	8
Bedford, Ind.....	97.3	1,615
North Freedom, Wis.....	97.3	148
Richmond, Ind.....	97.2	23
Frankfort, Ind.....	97.1	2,156
Kendallville, Ind.....	97.1	761
Oshkosh, Wis.....	96.9	4,459
Watertown, Wis.....	96.9	943
Stevens Point, Wis.....	96.8	953
Sturgeon Bay, Wis.....	96.6	802
Fond du Lac, Wis.....	96.5	3,735
Kewaunee, Wis.....	96.3	264
Oconto Falls, Wis.....	96.5	120
Edwardsville, Ill.....	96.4	1,238
Stoughton, Wis.....	96.4	1,076
Oconto, Wis.....	96.3	516
Shawano, Wis.....	96.2	448
Burlington, Wis.....	96.1	752
Green Bay, Wis.....	96	5,104
Keweenaw, Ill.....	95.9	407
Manilla, Ind.....	95.9	64
Shelbyville, Ind.....	95.8	2,003
Orland, Ill.....	95.8	322
Peshigo, Wis.....	95.8	122
Franklin, Ohio.....	95.7	641
Naperville, Ill.....	95.7	515
Peru, Ind.....	95.6	3,070
Avilla, Ind.....	95.6	114
Racine, Wis.....	95.5	6,488
Eau Claire, Wis.....	95.5	3,063
Appleton, Wis.....	95.5	2,802
Kaukauna, Wis.....	95.4	470
Waukesha, Wis.....	95.4	1,902
Barberton, Ohio.....	95.4	57
Galva, Ill.....	95.4	5
Neenah-Menasha, Wis.....	95.1	1,555
Marquette, Wis.....	95.1	1,444
Berlin, Wis.....	95.1	429
Horicon, Wis.....	95.1	362
Fairland, Ind.....	95.1	63

Final Account Collection Rating

Exchanges in the Central Group where accounts have been centralized six or more months, that collected 50 per cent or better of the total subscribers' final bills, as shown on February, 1914, collection report:

City and State.	Pct. collected.	No. of stations.
Columbus, Wis.....	100	872
Fort Atkinson, Wis.....	100	816
Omro, Wis.....	100	608
Oconto, Wis.....	100	516
Seneca, Ill.....	100	335
Herschler, Ill.....	100	303
Holly, Mich.....	100	290
Danville, Ohio.....	100	247
Dresden, Ohio.....	100	201
Three Oaks, Mich.....	100	200
Juneau, Wis.....	100	177
Reed City, Mich.....	100	171
East Tawas, Mich.....	100	165
Princeton, Wis.....	100	138
Newberry, Mich.....	100	115
Hersey, Mich.....	100	109
Cumberland, Ind.....	100	109
St. Charles, Mich.....	100	106
Fairland, Ind.....	100	63
Richmond, Ind.....	100	23
Champion, Mich.....	100	23
Humboldt, Mich.....	100	11
Hartland, Wis.....	96.7	172
Menominee, Mich.....	91.8	987
Mancelona, Mich.....	90.9	119
La Fayette, Ind.....	89.4	461
Naperville, Ill.....	88.5	515
Hastings, Mich.....	87.5	14
Powers, Mich.....	84.6	37
Winchester, Ohio.....	83.3	341
Pt. Clinton, Ohio.....	83.3	118
Dyer, Ind.....	83.3	66
Hampshire, Ill.....	83.3	6
Oconomowoc, Wis.....	83.2	645
Sparta, Mich.....	83	290
Manitowoc, Wis.....	80.2	1,544
Logansport, Ind.....	80	59
Wheeler, Mich.....	80	15
Lisbon, Ill.....	78.5	128
Lake Geneva, Wis.....	78.1	1,059
Michigamee, Mich.....	78	24
Holland, Mich.....	76.5	103
Burlington, Mich.....	76.4	50
Circleville, Ohio.....	75.6	807
Algonquin, Ill.....	75	181
Fenton, Mich.....	75	169
Little Rock, Ill.....	75	50
Mackinac Island, Mich.....	71.4	96
Stephenson, Mich.....	71.4	83
Miamisburg, Ohio.....	70	888
Mayville, Wis.....	70	528
Saint Martins, Wis.....	70	248
Florence, Wis.....	70	75
Berea, Ohio.....	69.5	198
Wayland, Mich.....	68.7	160
New Haven, Mich.....	68.1	69
Glen Ellyn, Ill.....	67	408
Boggs, Ind.....	67	88
Ashland, Wis.....	66.6	940
Plymouth, Mich.....	66.6	686
Manchester, Mich.....	66.6	365
Greenwood, Ind.....	66.1	347
Lombard, Ill.....	65.9	249
Chagrin Falls, Ohio.....	64.9	33
Vincennes, Ind.....	64.6	2,563
Peotone, Ill.....	64.2	81
Eagle Cliff, Ohio.....	64.2	38
Winnetka, Ill.....	63.4	1,213
Genoa Junction, Wis.....	63.3	233
Logan, Ohio.....	63.3	202
Lake Forest, Ill.....	63	1,165
West Branch, Mich.....	61.9	71
Culver, Ind.....	61.8	368
Shelbyville, Ind.....	61.2	2,008
Grand Haven, Mich.....	60.9	680
Geneva, Ill.....	60.8	493
Dswego, Ill.....	60.5	305
Chelsea, Mich.....	60.2	468
Auburn, Mich.....	60	100
St. Joseph, Mich.....	59.4	1,135
Yorkville, Ill.....	59.1	538
Fostoria, Ohio.....	58.9	1,366
Buchanan, Mich.....	58.8	634
St. John, Ind.....	58.8	69
Portsmouth, Ohio.....	58.2	447
Allegan, Mich.....	57.1	200
Barberton, Ohio.....	56.5	57
Plattville, Ill.....	56.2	160
N. Crystal Lake, Ill.....	56.1	447
Morris, Ill.....	56	1,195
Salena, Ill.....	55.5	534
Urbana, Ohio.....	55.5	240
Channahon, Ill.....	55.2	101
Union, Ill.....	55	151
Arlington Heights, Ill.....	54.5	504
Lowell, Ind.....	54.3	773
Casnovia, Mich.....	53.8	249
Keweenaw, Ill.....	53.3	407
Bellefontaine, Ohio.....	53	76
New Lenox, Ill.....	52.8	162
Corliss, Wis.....	52.7	75
Roselle, Ill.....	52.6	145
Highland Park, Ill.....	52.5	1,537

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Suburban Promotions in March

Evanston—K. McElligott, operator to supervisor.
Joliet—M. Carroll, assistant chief operator to chief operator.
Joliet—M. Rafter, supervisor to assistant chief operator.

Service Standing

The following are the place positions of the offices for the past three months:

January, 1914—
First.....West.
Second.....Belmont.
*Third.....Yards.
*Third.....Humboldt.
Fifth.....Main.
February, 1914—
First.....Wabash.
Second.....Lawndale.
Third.....Calumet.
Fourth.....Lake View.
Fifth.....Central.
March, 1914—
First.....Wabash.
Second.....Humboldt.
*Third.....Edgewater.
*Third.....Central.
Fifth.....Harrison.

*Tied for third place.

Death of Miss Eck

Wally Eck, employed at Harrison for nearly ten years, died after a short illness at her home, March 24th. Through her long period of service Miss Eck had made many friends and had endeared herself to them by her happy and kindly disposition. Deep sympathy was expressed for her family in their loss.

Mrs. Eck was the first beneficiary to receive the death benefit, which from her daughter's term of service amounted to six months' pay.

Entertainments and Weddings

Tuesday evening, April 7th, a miscellaneous shower and luncheon in honor of Margaret Kilroy, Main office clerk, who resigned to be married, was given at the home of Gene-

vieve Flynn, 3243 Douglas boulevard. Miss Kilroy has been with the company a number of years and in that time has made herself very popular with all her associates who, while congratulating her on her happiness, regret deeply her going. The table was decorated in pink and white and appropriate place cards. The central object of interest at the table was a wedding cake in which was concealed a ring which was to decide the fate of the young lady who should find it. Elizabeth Tyne was the fortunate lady, and it is expected she will be the next bride. Miss Kilroy received many beautiful gifts from her friends. Miss Kilroy was married at St. Mark's Church, Wednesday, April 29th, at three o'clock. Her wedding gown was of white crepe de chine. She was attended by her sister Maud Kilroy of Central, who wore pale pink crepe de chine. Main exchange friends presented her with a beautiful cut glass vase.

The many friends of Anna Johnston, Main supervisor, who recently was married to Mr. Thompson, united in giving her wedding gifts, consisting of an electric lamp, cut glass water set, sugar and creamer and a half dozen silver tea spoons.

Roberta McCarthy, clerk in the traffic department, was married to Frank Phillip Cornwall at Our Lady of Sorrow's Church April 22d. The bride wore a dress of white crepe de chine, trimmed with lace and carried a shower bouquet. Mrs. O'Connor, matron of honor, wore pink and carried pink roses. The friends of Miss McCarthy in the traffic department presented her with a full set of flat silver. Best wishes for her happiness were expressed by her friends in the office, who appreciated her faithful and efficient service, as well as her pleasant manner and friendly spirit.

Margaret Ward, chief operator at Hammond, has resigned to be married to E. McFadden, of Whiting. Miss Ward has been in the employ of the company for the past twelve years and leaves with the well wishes of her co-workers.

Miss Flanigan Entertained

Miss Flanigan, evening chief operator at Stewart office, was entertained by the Lawndale evening executive force on the afternoon of Tuesday, April 28th, at the Hotel La Salle. As evening chief operator at Lawndale Miss Flanigan won the respect and affectionate regard of her entire force, and it was not without considerable regret that she gave up Lawndale for Stewart, although the latter is a large new office very near her home. On account of the strong attachment existing between Miss Flanigan and

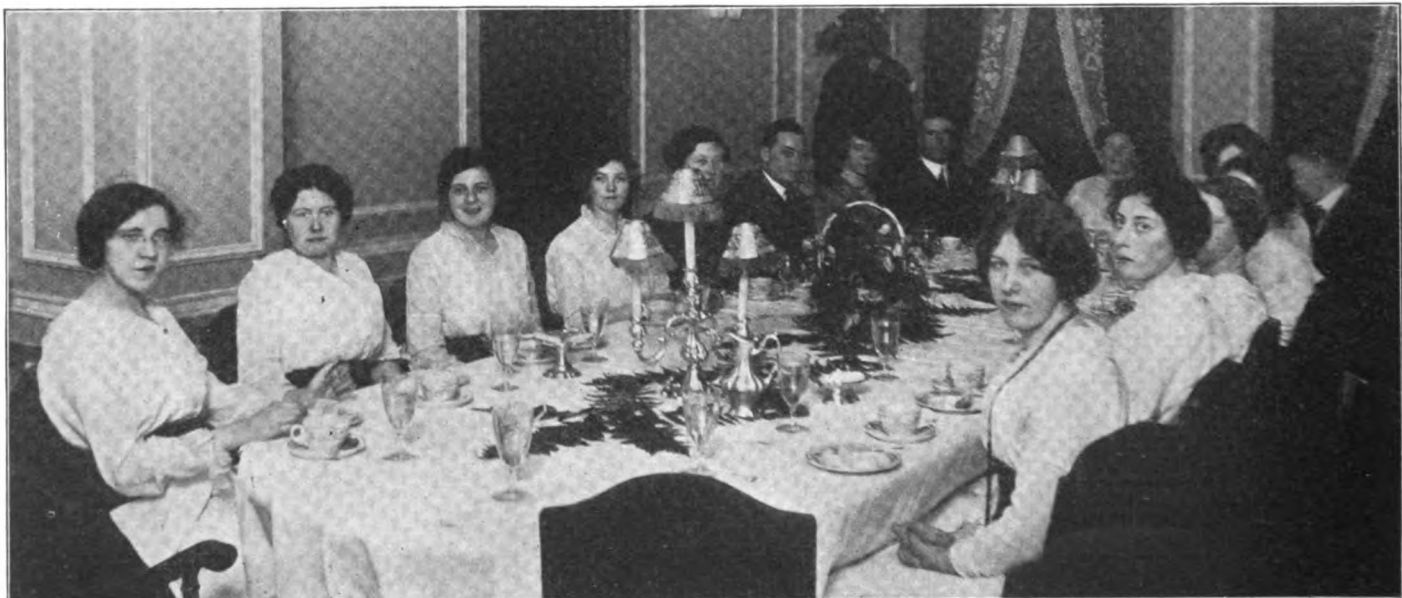
Libertyville, Ill.....	52.3	676
Marinette, Wis.....	51.8	1,444
Fainesville, Ohio.....	51.4	330
Gates Mill, Ohio.....	51.4	64
Wilmette, Ill.....	51.2	2,174
West Bend, Wis.....	51	458
Huntley, Ill.....	51	194
Bloomington, Ind.....	50.5	1,942
Monroe, Mich.....	50.5	1,147
Marquette, Mich.....	50.4	1,780
Homewood, Ill.....	50.4	210
Athens, Ohio.....	50.3	637
Sault Ste. Marie, Mich.....	50	1,300
Adillac, Mich.....	50	586
Hudson, Wis.....	50	579
Port Washington, Wis.....	50	422
Boyer City, Mich.....	50	404
Delavan, Ill.....	50	293
Newark, Ill.....	50	206
Frank, Mich.....	50	202
Cedarburg, Wis.....	50	195
Rainsboro, Ohio.....	50	149
Monee, Ill.....	50	123
Roseville, Ohio.....	50	91
Smith Valley, Ind.....	50	56

Tree Trimming

It is rather unusual to find a foreman who can take a crew of men and make deferred toll repairs that are covered by both timber and overhead inspection for a distance of sixty miles, secure all of the trimming, and get an absolute clearance according to specifications without calling for assistance in obtaining right-of-way or trimming permits on leads that carry from one to four cross arms full of wires, but this has been accomplished by Foreman Joe Fredrickson of the Niles, Mich., exchange.

Mr. Fredrickson completed his work in February, covering the lines from Moorpark near Three Rivers to Niles and from Niles to Berrien Springs, and did such work over this route that in many of the towns that he went through along his route he was requested to trim other trees after the owners of the property had seen his work. In some cases he was at first allowed only limited trimming, but after the owners had seen what he had done on others' trees they requested him to come back and do the same class of work on theirs.

In fact, there was no "butchery" of trees along this route. Mr. Fredrickson was allowed to trim all the trees on his route except three at one point in the city of Niles, but these will be cared for during the summer by estimate work.



LUNCHEON FOR MISS FLANIGAN AT LA SALLE HOTEL.

EVERY large business house seeks and expects highest efficiency for every dollar it spends. Especially is this so in the important matter of Fire Insurance, where property of immense value may be totally lost to the owner by fire if not protected by adequate and carefully placed insurance.

In past years it was customary to place insurance largely on a personal basis. Today things have changed. Insurance is now placed where the highest efficiency, the best service and advice, and the lowest rates, consistent with safety, may be secured. It is purely a business proposition.

The insurance of the Chicago Telephone Company and other associated Bell Companies has been placed on the above basis most satisfactorily for many years with the agency to whom the appended blank form is addressed.

We are glad of the opportunity to extend the privileges of our office and service to the employees of this company. If you desire, we will act as your personal representative, without cost to you, in adjusting any losses, whether your policy is carried by us or not. We will be glad to examine any insurance policies you may have, and advise you if you have the best rate and broadest form for your property. We will also keep track of your insurance for you, advising you in time so that there is no danger of the policy lapsing. This service and advice is at your disposal without fee of any kind.

MARSH & McLENNAN.

MARSH & McLENNAN

Insurance Exchange Building
Chicago, Illinois

191

Gentlemen:

My insurance policies expire approximately as follows:

DWELLING (Fire) _____

HOUSEHOLD FURNITURE (Fire) _____

BURGLARY _____

ACCIDENT _____

AUTOMOBILE _____

Please see me and give me your advice and information as to the broadest coverage and the lowest possible rate obtainable on my property.

Name _____

Address _____

Detach and Mail to Marsh & McLennan,
Insurance Exchange, Chicago, Ill.

her former co-workers, the Lawndale evening supervisors felt it appropriate to give the luncheon, and it proved to be a delightful occasion. Miss Norris, evening chief operator of Lawndale, who succeeded Miss Flanigan, Misses Finigan, Casey, Doherty, Griesch, Jennings, McDonald, Miller, Stejskal and Tourek acted as hostesses. Miss Faehcke, Lawndale day chief operator; Miss McGrath, Lawndale night chief operator; Messrs. Sheeren, Conway and Gale were invited as guests. Miss Casey, Mr. Cooper and Mr. McCorkle, being unable to attend, sent regrets.

The table was beautifully decorated with pink roses and ferns. At the conclusion of the luncheon a flashlight was taken, which appears on page 18. Miss Flanigan, Mr. Conway, Mr. Sheeren and others gave informal toasts and later Misses Stejskal, Miller and Doherty rendered selections on the piano. Stories were told by Mr. Sheeren and Mr. Gale.

Miss Flanigan was presented with a handsome basket of roses, and expressed much appreciation of the delightful afternoon given in her honor.

Hammond District Notes

Marie Moran, assistant chief operator, has been appointed chief operator, vice Margaret Ward, resigned. Elsie Doebler has been appointed assistant chief operator succeeding Miss Moran.

Ada Deathe, chief operator at Lowell, held an operator's meeting at her house April 8th. An hour was spent in reading and discussing various operating rules and conditions, after which light refreshments were served. Much interest was shown during the meeting, each operator expressing her opinion on topics under discussion.

Mabel Seramur has taken up the work of relief operator at Lowell, succeeding Myrtle Falk, the latter having succeeded Ruby Collins as eight-hour operator.

Once more the noted actor in all "Love Roles" (Cupid by name) has found his way into the ranks of the operating force at the Lowell exchange. Illa Brannack was the "victim" this time. She is wearing a diamond ring which she says is a mere gift. Maybe it is (?), although indications point seriously toward the beautiful month of June.

D. M. Griesel, "trouble shooter" from the Lowell office, met with an accident while clearing trouble a short time ago. While up on a pole he missed his footing and fell to the ground, the test set striking him on the head. Luckily he was not hurt seriously, and was able to resume work as soon as he could right himself and climb the pole.

Teresa Eckert, of the Lowell exchange, took her vacation last month.

Lena Lumme, former chief operator at Garrett, has taken a position with the Gary exchange.

Wisconsin Division

**T. N. Moore, Correspondent,
Milwaukee**

Mr. Bendinger Resigns

The Wisconsin Telephone Company lost one of its "boys" when, on April 1st, Henry J. Bendinger, district manager at Janesville, left the service to enter the practice of law, in partnership with one of Milwaukee's well-

known firms of attorneys, Freeman and Guellfuss.

The Wisconsin Telephone Company has been Mr. Bendinger's employer since his boyhood. For over fourteen years he has been rapidly climbing up in the telephone business. Beginning as an office boy, on December 9, 1899, he has been steadily promoted, filling the positions of mail clerk, bill clerk, chief clerk, supervisor of collections, chief commercial agent, and finally, the position of district manager.

Mr. Bendinger's ambition and capacity are also emphasized in his achievements outside of the telephone work. Leaving school for work when he was fifteen, he did not give up study, and he has in addition to his well-performed labors for the telephone company, pursued his studies in the high school, Marquette University and the Milwaukee Law School, to such purpose that he was admitted to the bar with credit.

On the evening of March 28th Mr. Bendinger's old associates in the Wisconsin Telephone Company gave him as a testimonial of their warm regard a dinner at the Wisconsin Hotel, at which much praise was spoken for what he has done and best wishes expressed for his future success.

Also as a substantial earnest of his friends' good wishes he was presented with a beautiful mahogany office desk.

Mr. Bendinger is a native Milwaukeean, and begins to practice his profession among friends. His old associates feel confident that he will have abundant success.

District Commercial Meeting

On April 8th and 9th a commercial meeting was held in the Supervisors' room at the Court House, Madison. Those present were the various managers, district officials and other commercial employees in the Madison and Janesville Districts.

The meeting was attended by F. M. McEniry, commercial superintendent; O. B. Koepke, division auditor of receipts; F. H. Lincoln, traffic superintendent; L. Killam, plant superintendent; J. F. Krizek, attorney; W. W. Hiller, chief commercial agent; T. N. Moore, agent for connecting companies, and L. J. Fitzgerald, special agent, all of Milwaukee.

Visiting Days in Wisconsin

The Wisconsin Telephone Company has held receptions for subscribers at a number of exchanges and our people have always welcomed every opportunity of explaining the intricacies of telephone operation to subscribers individually. However, until recently no systematic effort had been made along the line of having the public generally visit the exchange and have different features of the work explained. Within the past month we have inaugurated a plan of having visiting days at our different offices and they have already been held at the following exchanges: Janesville, March 19th and 20th; Fond du Lac, Oshkosh and Madison, March 27th and 28th; Racine, April 10th and 11th.

Invitations were sent out to city and rural subscribers, informing them that on certain specified days we would hold "open house," when we would be pleased to have them call at the exchange and our people would be prepared to explain the switchboard and other apparatus.

The results from our standpoint were most gratifying, the attendance at the different exchanges being as follows: Janesville, 485;

Madison, 1610; Oshkosh, 4000; Fond du Lac, 1070; Racine, 2700.

Madison Telephone Club Banquet

On the evening of March 30th, the men of the Madison Plant Department, including district officials and members of the commercial department, were tendered a banquet at the Madison Club by District Manager Miller in recognition of the good attendance of the semi-monthly meetings held during the winter months.

Mr. Miller gave a very interesting talk along telephone lines, commending the good work done in the Madison plant department and pointing out the good to be gained from such meetings as referred to above.

Mr. Schroeder, district plant chief, entertained the men with a short talk covering his early days in the Madison exchange, when he was the only man on the job, occupying the position of lineman, installer and general all-around man.

Short talks were also made by District Wire Chief Brewer, Local Manager Brahany, District Commercial Agent Deist, Local Wire Chief Clark and City Foreman Roberts.

A very interesting feature of the evening was the menu card which reads as follows:

HEARKEN YE HUNGRY!!!

TAKE A SLANT AT THE FOLLOWING:

"MENU."

Vegetable Soup "a la Battery"
Roast Fillet of Beef "a la Twisted Pair"
Mashed Potatoes "En Relay"
Corn "Au Cross Arm"
Shredded Lettuce "Carbolinum Sauce"
Cigars Insulator Ice Cream Coffee

Here's One on the News

Force of association, so to speak, was responsible for an error on the part of the make-up man who arranged the material into pages for the April issue of the BELL TELEPHONE NEWS. A photograph of a minut given by operators at the Main office, Milwaukee, was stated to have been given at the Main office, Cleveland. Several pictures of Cleveland operators in somewhat similar costumes were received and this was responsible for the slip.

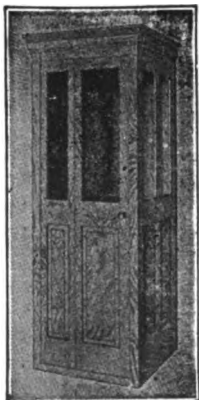
Appleton District

The Gillett Rural Telephone Company, connecting with the Shawano exchange, will string about ten miles of new wire just as soon as weather permits. The switchboard will be removed from the town of Hintz and Hintz subscribers will be served from the board at Gillett. Sixty-five subscribers at Hintz will be cut over into the Gillett office.

Commercial agent La Chapelle, at Green Bay, took contracts for private branch exchanges for Martin, Martin and Martin, attorneys, and the Citizens' National Bank. They were for two trunks and four stations and two drops and five stations, respectively.

Trouble appeared in the Eighth Street submarine cable at Manitowoc on March 7th. Four days later a new submarine cable had been installed and was in working order. Work was under supervision of District Foreman James Hobbins.

During March a special effort was made at Neenah to get new business, the results of



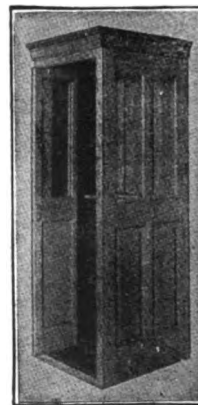
For Close Quarters Use the MILLER FOLDING DOOR TELEPHONE BOOTH

Requires practically no space to open or close door. This feature should appeal to many of your subscribers—tell them about it. At the pay stations they may be crowded for room—this new Miller Folding Door booth may permit them to add another extension and increase your revenue.

Write us for literature.

C. H. Brownell,

Peru, Indiana



which were very gratifying. With the efforts of the manager, Mr. Willarson, and E. P. Parish, district commercial agent, were combined those of R. J. Printup, district commercial agent; C. H. Monahan, commercial agent from Oshkosh, and P. B. Hoebe, commercial agent from Fond du Lac. During the canvass sixty-nine contracts were taken.

Charles T. Perrin, commercial agent at Oshkosh, died on March 8, 1914, after a lengthy illness. Death was caused by sarcoma. Mr. Perrin was born at Oshkosh fifty-four years ago and has spent his entire life in that city. He had been commercial agent for the Wisconsin Telephone Company for the past seventeen years, with the exception of a two-year term as member of the Oshkosh Board of Public Works. He is survived by a widow and two children and also a brother and sister, all of Oshkosh. Mr. Perrin was a man of a most jovial disposition, being familiarly known as "Funny Perrin." Underneath this sunny exterior, however, was a strong and forceful character and his death will be sincerely mourned by his many friends and associates.

The Oshkosh operators entertained their friends at a private dancing party at the Odd Fellows Hall, on March 10th. About 300 guests attended.

On March 7th operators at Princeton entertained about fifty young ladies at a progressive clinch party in the Inter Sese Club rooms. The Krueger Marquardt Trio rendered pretty selections while a four-course luncheon was served by the operators. The rooms were prettily decorated with blue and white streamers and bells. Blue bell score cards were used.

The Washington Island Telephone Company, connecting with the Sturgeon Bay exchange, serving 110 subscribers, has decided to erect an exchange building and move the switchboard and central office apparatus which is now located in a private residence. This company was incorporated about six years ago and its lines now extend to all parts of Washington Island.

G. R. Lovelace, lineman at Sturgeon Bay, spent two weeks at Ephraim during March installing telephones and stringing new lines in the new State Park between Fish Creek and Ephraim.

Eau Claire District

At a meeting March 16th, Manager D. U. Parkinson and W. P. Hyland, commercial agent at Ashland, secured a roadway contract from the Eastern Telephone Company, of Sanborn Farmers, to connect with the Ashland exchange. The farmers will build a new pole line, string No. 12 wire to the exchange limits and receive the benefits of the excellent Ashland service.

A private branch exchange consisting of a No. 101 switchboard and twenty stations has been ordered by the Hotel Culver, Ashland. This will be the first private branch exchange installed in Ashland. Hurrah for Ashland!

Agnes Carlson, toll operator at Ashland, has resigned. She is succeeded by Lillian Buchholtz. Mable Vanark has accepted a position as relief operator.

Arthur Curry, collector at Ashland, was transferred to Superior as commercial agent. Andrew Stachura succeeds Mr. Curry as collector.

Helen Ranscher, local operator at Chippewa Falls, has resigned and is succeeded by Lillian Le Voie. The Misses Eva Adams, Laura Kleinheintz and Lena Scheidler have resigned to do other work, and Chloe White, Petia Christenson and Margaret O'Hara are added to the operating force.

Loretta Strahan, chief operator, visited Minneapolis, St. Paul and Stillwater on March 15th and 16th.

J. J. Carroll, repairman at Chippewa Falls, has resigned to engage in other work and is succeeded by William Ives.

Loretta Strahan, chief operator; Hazel Kehnl, local operator, and Wallace Anderson, wire chief at Chippewa Falls, visited Eau Claire one Saturday evening to take in the sights and to do some shopping. While strolling along the street Hazel lost a shoe which she had purchased, so they had to go back and find it. Unfortunately the last car left them behind, so they had to return Sunday morning on the 4:45. They all declare that when visiting Eau Claire they will hang on to their shoes and make doubly sure to catch the last car.

William Pitman, commercial agent at Eau Claire, has been promoted to manager of the Stanley exchange.

R. B. Richter, lineman at Eau Claire, has been promoted to commercial agent.

The toll attendant's station at the Galloway House at Eau Claire was completed during March, and Emma Beste, formerly clerk in the commercial department, has been placed in charge.

Manager J. E. Bonell, of Eau Claire, has taken a contract for a No. 4 private branch exchange for the Commercial Hotel, Eau Claire. The initial installation on this contract consists of sixty-three telephones. During the past six months all three of the leading hotels in Eau Claire have signed contracts for No. 4 private branch exchanges. A forty-four station exchange having been installed in the Galloway House about two months ago, the installation of a sixty-five station exchange being practically completed in the Eau Claire House, and with the above contract for the Commercial Hotel, the traveling public visiting Eau Claire will now have access to local and long-distance service direct from their rooms.

P. T. Keena, construction foreman, with a large crew is now in Eau Claire, erecting additional cable and pole line facilities.

J. E. Bonell, manager at Eau Claire, has made a contract with the Mount Hope Telephone Company, a new roadway company located southwest of Eau Claire.

Announcements have been received at Hudson of the marriage of Alice Hoag, former Morse operator, to John Thompson, of Emmetsburg, Ia.

Lillian Dreyer, of Milwaukee, who succeeded Miss Hoag as Morse operator at Hudson, resigned February 14th on account of ill health and has returned to her home. She is succeeded by Ralph Kromroy of Eau Claire.

E. P. Kelley, manager, and C. Vincent, repairman, of Hudson exchange, had rather an unusual experience the other day. They were installing a telephone at Lakeland, Minn., and had placed the instrument and almost completed the outside work, when they glanced back and discovered that the house in which they had just placed the telephone was on fire. There is no city water plant at Lakeland and little or no fire protection. But they succeeded in removing all the household furniture before the walls fell and also saved the telephone instrument. The building was completely destroyed.

G. J. Rueth, repairman at Merrill, has been transferred to Eau Claire. He is succeeded by M. E. Landaal, formerly repairman at Stevens Point.

Ella Jones, Western Union operator at Merrill, has been transferred to Wells, Minn. She is succeeded by Harry Erdman, formerly Western Union operator at Merrill.

A farewell party was given by the Blue Bell Club of the Merrill exchange on Thursday evening, April 2nd, in honor of G. J. Rueth. Whist was played during the evening. First prize was awarded to Mrs. E. L. Dexter and second prize to Florence Freilberg. Refreshments were then served and after a few selections on the phonograph and a few toasts to the good health and future of Mr. Rueth, the guests departed.

Jesse Horton, formerly repairman at Merrill, has accepted a position as manager of the independent exchange at Fall Creek.

On Friday evening, April 3rd, a farewell party was given by Mr. and Mrs. Jesse Horton at their home in honor of G. J. Rueth, recently of the Merrill exchange. About twelve guests were present, all being of the telephone force. Whist was played. A three-course supper was then served, which everybody heartily enjoyed.

E. L. Dexter, manager of the Merrill exchange, has secured two contracts covering roadway companies to connect with Merrill exchange, one from the Wisconsin River Telephone Company with twelve subscribers, and the other from the Monarch Telephone Company with twenty-four subscribers. These companies will start construction this spring.

Work on the estimate covering additional cable facilities at Eau Claire is nearing completion.

A new contract for a sixty-station private branch exchange has been secured from the Commercial House at Eau Claire. The material for installation is now on hand and work has been started by Equipment Foreman E. Peterson and assistant.

Blanche Fritz, chief operator at Ladysmith, spent a few days in Chippewa Falls with Miss Lillian La Voie, who is toll operator at that exchange.

Gertrude Rogness has been reemployed as night operator at Ladysmith.

Martin Connolly, district cableman, has completed the cable repairs at Ladysmith.

Alma Retelstorf, toll operator at Menomonie, underwent an operation at the Sacred Heart Hospital on April 7th. Miss Retelstorf is getting along nicely and is expected back soon.

Hilda Lum, at Menomonie, entertained the operators at a game or bridge April 3rd. Prizes were won by Clara Condo and Eva Greeley.

Eva Greeley was pleasantly surprised by a number of the Menomonie operators, the occasion being her birthday. Miss Greeley was presented with numerous gifts. The evening was spent in games and dancing, after which an exceedingly appetizing supper was served.

A "Hikers' Club" has been formed at Menomonie and Florence Bird has been elected president. The "Hikers" made their first trip on April 1st to Menomonie Junction.

The following visited the Menomonie office during April: Mayme and Anna Rootler, operators at Baldwin; Mrs. Crosby, operator at Downsville; Mrs. Higgins, from Minneapolis, and Jessie Tilleson, from Colfax. Mrs. Higgins and Miss Tilleson were formerly operators at the Menomonie office.

Janesville District

Joe Casey, formerly lineman with the construction crew at Eau Claire, has accepted a position as lineman at the Janesville exchange, succeeding W. C. Roberts, who resigned to engage in other business.

A ten-station private branch exchange switchboard was installed at the Baker Manufacturing Company factory at Evansville and is giving perfect satisfaction.

TELEPHONE WIRES

ENAMEL,
SILK,
COTTON,

Magnet Wire

PROMPT DELIVERIES

ROME WIRE COMPANY

ROME, N. Y.

HUSSEY-BINNS SHOVEL COMPANY

Pittsburgh, Pa.

Manufacturers of all descriptions of

Crucible Cast Steel Shovels, Spades and Scoops

by their

INGOT PROCESS

for heavy and light work.

Guarantee to Please.

Correspondence Invited.

Helen Bestor, chief operator at Evansville, returned to her duties April 5th after an absence of a month on account of ill health.

Ethel Cushman, night chief operator at Evansville, spent a week with friends at Winona, Wis.

Cupid again visited the Janesville exchange taking away Mae Callahan, local operator, on March 10th. Miss Callahan was succeeded by Rose Fineran, student.

Ina Winslow has temporary leave of absence on account of ill health. She is succeeded by Miss Griffin, student.

Madison District

Minnie Cunitz, toll operator at Ft. Atkinson, very pleasantly entertained the operators at her home on Jones avenue.

The operators at the Ft. Atkinson exchange had a little spread in their "rest room" and it was so well enjoyed they made a resolution it would not be the last one.

Neille McMillen has resigned her position as local operator at the Ft. Atkinson exchange to accept a position as private branch exchange operator with the James Manufacturing Company.

Frieda Meyers, chief operator at Horicon, was kept at home for a week with a serious case of "mumps."

The chief operator at Waupun assisted by one of the operators entertained the office force at her home on April 2d in honor of Alyce Rumsbe's birthday. All reported a good time.

Walter Scharff, former switchboardman at the Madison exchange, has taken a position as manager at Horicon.

C. H. Kline, formerly of the construction department at Milwaukee has accepted a position as manager at Juneau, succeeding E. J. Nickerson, resigned.

J. H. Keating, former manager at Mayville has been transferred to Stoughton, where he is also acting as manager.

F. L. Smiley, former manager at Stoughton, has been transferred to Beloit as manager.

Hattie Luedtke, chief operator at Jefferson, recently resigned to be married, and is succeeded by Florence Ladien. Tillie Beaver of Jefferson, has accepted a position as day operator to succeed Miss Ladien. On Thursday evening, April 9th, a miscellaneous snowier was given for Miss Luedtke, by the girls of the Jefferson exchange.

Alma Waldorf, assistant local chief operator at Madison, has resigned to be married. Florence Keedy succeeds Miss Waldorf. Miss Keedy was formerly teacher at the Madison exchange. Helen Kraft, formerly local supervisor at Madison Exchange, takes the place of teacher vacated by Miss Keedy.

Dora Brandt, private exchange operator at the University of Wisconsin, was married to Mr. French in Milwaukee, April 3rd. Miss Brandt will continue her duties at the University switchboard for some time.

Helga Olson, local operator at Madison, spent a few days in Chicago, during the past month.

Margaret Fix resigned her position as toll attendant at the New Park Hotel, Madison. She was succeeded by Dora Cunningham.

H. G. Miller, manager at Jefferson, has secured a contract for a No. 1 private branch exchange of six stations from the Sheboygan Evaporated Milk Company.

Milwaukee District

The employees of the Mayville office gave a farewell party for Mr. and Mrs. Joseph Keating and presented Mr. Keating with a very beautiful mahogany clock. Mr. Keating has



PROSPECT BIRTHDAY PARTY FOR MRS. MCWHINNEY.

recently been transferred to Stoughton as manager.

Irma Geisse has taken a position as a substitute operator at the Mayville exchange.

The operators of the Waukesha exchange enjoyed a sleighride Friday evening, February 20th, after which lunch was served at the home of Irene and Doris Futz.

Indiana Division

D. H. Whitam, Correspondent
Indianapolis

Division Offices

At the regular monthly meeting of the Indiana Bell Telephone Society at the University club, Indianapolis, R. E. Guild read a paper on "Corporation Accounting." The paper was so interesting and provoked so much discussion that a copy is to be supplied to each member.

L. N. Whitney, of Boston, was a caller early in April. The Atlantic air is certainly agreeing with the former general manager.

Central District

On the evening of March 26th a banquet and play were given by the Toll girls on the Roof Garden of the Main Office Building. The plant department had arranged a stage across the south end of the Roof Garden, and, with able assistance from the girls themselves, made and hung curtains. These, with most effective stage settings, the background of which was composed of gracefully draped large flags, made an attractive picture. The play, "Sister Masons," was funny in the extreme, and it is hard to say who deserves the most complimentary mention. Throughout the entire play the audience was surprised more than once at the ability displayed by the young ladies in the play. The cast included Vonnie Nelson as "Sister Angel Cake," who was "Master of the Lodge and Most Worthy Grand Skv Rocket"; Clarice Cadick as "Sister Gossip"; Mary Dugan as "Sister Busybody"; Martha Pommerening as "Sister Thankful"; Minnie Delph as "Sister Blue

Blood"; Reba Harkins as "Mrs. Pollock"; Dorothy Heyer as "Mrs. Ipecack"; and Anna Sullivan as the "Policeman," who was called in to restore order when the "goat" (Lulu Pavey) was brought in for the third degree. Mention must also be made of the skill and effectiveness shown by Miss Cooper in conducting the orchestra of thirty pieces. Miss Cooper is second only to Sousa when it comes to directing orchestras. The instruments used were a drum, two accordions, and the rest were combs covered with paper. The effect was all that could be expected. Among the costumes worn was a skirt of quilted blue satin, which was made in Ireland 125 years ago.

On April 8th the Prospect operators entertained Mrs. Adaline McWhinney, "mother of the telephone girls," in honor of her birthday. This was a surprise luncheon. The decorations were carried out in the favorite colors of Mrs. McWhinney—yellow and white. Brass candelabra, holding yellow candles, gave all the light. The luncheon was a spread and everything was good. A huge birthday cake held the place of honor. On the top of the cake was a bell done in yellow icing. Suspended from the ceiling was a huge yellow bell. At the proper time a cord was pulled and from the clapper fell a shower of downy little chicks. These were the favors. A gorgeous azalea was presented to Mrs. McWhinney by the girls.

Inez Johnson, the Belmont chief operator and formerly chief operator of the Prospect office, entertained for her former associates at her home Thursday evening, April 2d, with a taffy pulling party. Among the guests were Ethel Brosnan and Mae Stockdel.

Emma Woelfert and Mrs. Hazel Crickmore entertained with a miscellaneous shower at the home of Mrs. Crickmore April 4th in honor of Mrs. Etta Johnson Hale, chief clerk to Mr. Gregoire and formerly repair clerk at the Prospect office. The decorations were carried out in pink and white—the bridal colors. A buffet supper was served. The bride was the recipient of many beautiful and useful gifts, and a very enjoyable evening was spent.

Mae Rohrer has been promoted to the position of supervisor at the North office, suc-

Sterling

Contractors' Barrow

Built to give and gives the kind of service which contractors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction.

It will hold over twice the load of ordinary pan-shaped barrows and will oulast two similar style barrows of any other make.

Among its desirable features are:

- Channel steel legs—16 gauge steel tray—angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.



Highest Grade of Inside and Outside TELEPHONE WIRE

Made in accordance with the specifications of the Western Electric Company or those of any other customer.

The Electric Cable Company

17 Battery Place, New York

Boston
Philadelphia

Chicago
St. Louis

Cleveland
San Francisco

Works: Bridgeport, Conn.

ceeding Hazel Matheny, who has been transferred to the Belmont office.

The second A division of the North office was the banner division during the month of March.

The announcement of the marriage of May Sherman, repair clerk at the North office, to Robert Newburg came as a surprise to a large majority of the North people.

Hilda Adamson, B board supervisor at the North office, resigned April 30th. Miss Adamson will leave Indianapolis on May 6th for New York and she will sail May 9th for Montrose, Scotland. Miss Adamson intends to return in the fall of 1915.

Ruth Becker of the Belmont office was married on Easter Sunday.

Florence Johnson, one of the Belmont operators, has been transferred to Toledo, Ohio.

Lucille Loy, toll operator, was married on April 29th to Walter Baxter.

Northern District

Arrangements have been completed to supply toll service from Elwood to the Aroma Telephone Company.

Centralized accounting became effective in Elwood May 1st.

Negotiations are practically completed for the sale of the Central Union exchange at Avilla to the Farmers' Mutual Telephone Company. Central Union toll connection will be maintained through Kendallville.

Beulah Nicely entertained some of the Anderson operators at a birthday party March 19th. She received a kodak album.

Grover C. Lemmon has been appointed switchboard man at Anderson.

Members of the roller skating club at Elwood, mentioned in our last issue, have grown proficient and many pleasant evenings have been spent.

During February the Elwood exchange made a net gain of thirteen stations and in March, sixteen. Manager Porter has also regraded 108 subscribers. These gains are considered very creditable for an exchange of this size.

Opal Achenbach, toll operator at Elwood, resigned April 1st and became the bride of Gail Orbaugh.

Miss H. K. Porter has resumed her position of clerk at Peru, after a year's leave of absence.

Bena Singer entertained the Peru commercial employees at a chafing dish party March

16th, in honor of the eighteenth birthday of Florence Gilbreth. Rhum was the game of the evening and prizes were won by Luna Burbank and Frons Tibbetts. Dalton Waller won the "booby."

A new motor generator has been installed at Logansport to furnish battery for leased circuits.

On April 7th the Peru Broad office "lost" a 150-pair underground cable. The trouble was located in a lateral between the office manhole and the underground pole. All telephones were restored to service in about five hours.

Manager E. T. Bonds, of South Bend, has moved to the country. Between some chickens purchased and rheumatism developed since this rural migration, "Eddie" has been a pretty busy man. Anyone interested in the details of his experience with some Wyandotte and Plymouth Rock poultry can get them from him.

Helen Brogan, formerly toll operator at Gas City, has been appointed chief operator, succeeding Helen Kaltenbach, resigned on account of ill health. Bernice Bainbridge, local operator, succeeds Miss Brogan as toll operator. Margaret Lewis succeeds Miss Bainbridge.

Helen Fath has been transferred from the traffic to the commercial department at Gas City. Elizabeth Roberts succeeds Miss Fath in the traffic work and Eunice Day succeeds Miss Roberts.

The North Vernon exchange and all toll stations have been discontinued and toll lines connected with the Jennings County Telephone Company board. Emma Clerkin, who has been acting as toll operator, bill clerk and collector, has taken a position with the North Vernon Creamery. Miss Clerkin had a unique record of service with the telephone company. She worked seven days a week for three years and four months and missed only one day.

Mabel Quinlan has returned to her duties in Shelbyville, after a vacation spent in Cincinnati.

Gladys Lancaster, toll operator at New Castle, was married March 23d to S. E. Baker. Mrs. Baker will continue her work at the office.

Mrs. Nora Phelps, toll operator at New Castle, has resigned and is succeeded by Martha Molstner.

Manager Monticue, of New Castle, took a contract for a No. 2 private branch exchange

for the Holloway-Wright Furniture Company.

Friends of William Browand, line foreman at Auburn, celebrated his birthday April 4th by surprising him at his home and presenting him with a number of gifts.

B. C. Dausman, Central Union Morse operator at Auburn, has taken quarters in the new Y. M. C. A. building.

E. Sawyer has resumed her duties as toll operator at Kendallville, after a vacation spent in Auburn.

A. D. Phillips, who was connected with the Richmond exchange more than twenty-eight years and has now retired on pension, has gone to Florida, where he will probably reside permanently.

Manager N. H. Hutton, of Richmond, one of the pioneers of the Indiana Division, was an Indianapolis caller March 31st. Everyone is always glad to see and shake hands with Mr. Hutton.

Amos Pyle, of Warsaw, the first to receive a company pension in the Fort Wayne territory, has decided to become a farmer and has located near Cando, N. D.

Wesley A. Stines has been appointed foreman at Fort Wayne, succeeding L. J. McCormack, who, on account of a recent accident, is on the disability list.

Southern District

Edith Kobert, toll operator at Terre Haute, has resigned and is succeeded by Mary Hickey.

Members of the Terre Haute Bell Telephone Society were guests of Manager Kissling April 7th at a moving picture lecture on the Panama Canal and Iceland. After the entertainment Ira Humphreys sprung a surprise by treating the members to a pie supper, which was much enjoyed.

A new sixteen-gauge, twelve-quad toll cable, 1,000 feet in length, has been erected from the town of West Baden to the West Baden Springs Hotel. The work was done by the Bedford plant force, assisted by District cableman G. C. Thompson. The cable is used jointly by the Central Union Telephone Company and the Western Union Telegraph Company, and its installation was made necessary by extensive improvements being made to the grounds of the famous West Baden Springs Hotel.

Emory Love, formerly collector at Bedford,

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.



Write for FREE SAMPLE
Make Test and Comparison



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



The "Dreadnaught" Brazed Steel Gasoline Blow Torch

Made to deliver the Hottest Fire and to withstand the Hardest Knocks and has made good and stood the service test of the Telephone Companies.

No soft Solder to melt or crack. Large Pump, quick starting Burner.

Convenient Filler service.

Let us quote you.

The P. Wall Mfg. Supply Co.
PITTSBURGH, PENNA.

was advanced to the position of cashier on April 1st.

Early on the morning of March 7th a steam pipe passing through one of the manholes at French Lick burst and put out of service our toll cable. Owing to the train service and the necessity of restoring service at the earliest possible moment, the men from Bedford and a cableman from Washington were sent to French Lick at once via automobile. Service was restored about noon to the hundreds of guests stopping at the French Lick Springs.

Helen Dixon, formerly cashier at Bedford, has accepted the position of cashier at Muncie.

The installation of new equipment has been resumed at Crawfordsville and the cut-over is expected to be made about July 1st.

Ruth Redmund, operator at Crawfordsville, has been promoted to chief operator.

Crawfordsville operators gave an Easter dance April 13th.

Lilly Plummer, local operator at Brooklyn, entertained Brooklyn exchange employees at her home in the evening of April 6th. The time was spent in games and dancing.

Bessie Christie, night operator at Bloomington, died April 5th from spinal meningitis. Some of the pallbearers were her fellow operators, and beautiful floral offerings testified the esteem in which Miss Christie was held.

J. A. Parrish succeeds E. G. Knepper as manager of the Linton exchange of the New Home Telephone Company. Mr. Knepper resigned on account of illness.

Cleveland Division.

W. K. Lawrence, Correspondent.

Death of Mrs. Rose Offenberg

Mrs. Rose Offenberg, who has been in the employ of the Cleveland Telephone Company for the past five years and who was stationed at Berea, died March 25th. Mrs. Offenberg's loss will be keenly felt by the subscribers with whom she came in contact over the telephone. Her fellow associates at the Berea exchange will greatly mourn her loss. She is survived by two sons, one nineteen years of age and the other nine.

Bell Club Girls Serve

On Saturday evening, March 28th, about 150 members of the Mercantile League held a social at the Y. W. C. A. The fore part of the evening some of the young ladies put on a very interesting entertainment for the rest of the girls and after the entertainment luncheon was served in the Japanese Tea Garden. Everyone seemed unusually pleased with the makeup and the way in which the Bell Club Girls served. Some time in the near future the club expects to give a larger entertainment and a special request is made that every Bell Club Girl attend. A photograph of the girl who served appears on the first page of the Girls' Section.

To Give Eastern Time

Cleveland Telephone Company operators began May 1st giving eastern standard time to subscribers who request the correct time of day.

From dawn till dark—and even later—Bell telephone wires are busy carrying requests for "Time, Please?". It has been found that between the hours of six and seven in the morning forty-five per cent. of the originating calls for the entire city are queries for the time of day, while at a number of the larger exchanges located in the residential districts the originating calls for "Time?" run as high as eighty-four per cent. If this information were not given out, the remaining originating calls could be handled with half the number of operators during these hours.

Whether the questioner be the butcher, baker or candlestick maker, business woman or homekeeper, the hour is always available and cheerfully given by the ever-accommodating operator. During the school year these requests are greatly increased, for every child of school age soon finds the telephone is more to be depended upon than the home clock, and that the time received over the wire will correspond exactly with the clock at school.

It is in the morning, at noon and at night, when the wires are loaded to the maximum, that the greater number of these inquiries are made, and for this reason extra operators are required. The expense involved in handling calls for "Time?" amounts to approxi-

mately \$5,000 per annum. By actual count 18,000 requests for the hour are made over Bell lines each day, or 1,200 queries per hour throughout the day.

"It is safe to predict," said an official of the Cleveland Telephone Company, "that beginning May 1st our patrons will be even more dependent upon us than ever for the correct hour, until the watch of the man who now has central time becomes adjusted to that of the easterners—and we are preparing to meet this increase in traffic."

Ohio Division

B. T. Calaway, Correspondent,
Columbus

Columbus District

Private branch exchange additional service during March amounted to twenty-five stations and two trunks. No new private exchange contracts were secured during March.

The Columbus Dispatch and the Columbus Citizen have signed contracts for private-line service to Neil Park during the baseball season.

The gain for March was 190 stations, making 22,214 at Columbus, April 1st.

S. C. Dickerson assumed the duties of Manager at Westerville, April 6th, vice I. L. Parrett resigned.

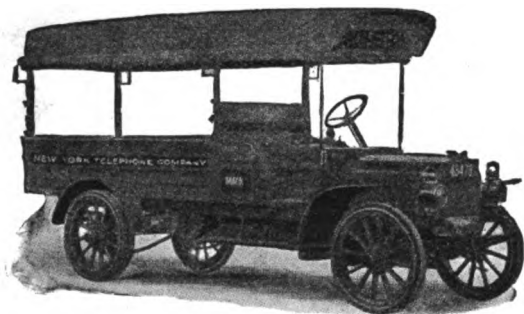
R. E. Skeels formerly commercial agent at Columbus, has been appointed chief clerk at Youngstown to succeed J. A. Adams, who has been transferred to Toledo, as chief clerk, succeeding J. Brennan who will be associated in business with his father at Toledo.

Toledo District

Allie Penney has resigned as supervisor at Bowling Green, and is succeeded by Clara Maas.

Verna Parlette, Findlay operator, resigned April 1st, and is succeeded by Mary Gaertner.

On March 9th, G. W. Woodward, manager of the Sandusky Theater, entertained the



ONE HUNDRED AND THIRTY - SIX

International Motor Co. Trucks of various sizes in the service of the Associated Bell Telephone Companies.

A total of a steady stream of orders for Supply Wagons, Post Hole Diggers and Powerful Winch Trucks for aerial construction and underground cable placing.

MACK



SAURER

INTERNATIONAL MOTOR COMPANY

West End Ave. and 64th Street

NEW YORK

Quick, Neat and Substantial Fastenings

in walls, floors and ceilings of hard substances, such as brick, stone and concrete, can be easily made by using



SEBCO EXPANSION BOLTS AND SCREW ANCHORS

There is no better method of attaching telephone sets, switch boards, motors, insulator brackets, cable hangers, cable clamps, insulators, bridle rings, lamps, push buttons, etc.



The Bolts are for heavy work, the Anchors for light work.

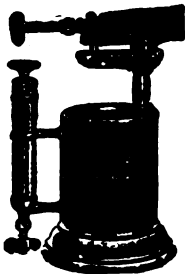
SEND FOR SAMPLES AND CATALOGUE

STAR EXPANSION BOLT CO.

147 CEDAR ST.

NEW YORK

TRADE
No. 226 Turner HOT BLAST Kerosene Torch
MARK



This Kerosene Torch is not only unequaled but is far in advance of any other kerosene torch on the market. A powerful blue flame is produced several hundred degrees hotter than is possible with gasoline in any single jet torch. The increasing cost of gasoline and its forbidden use by insurance rules for inside use in some localities is rapidly popularizing this torch.

Especially Recommended to
Telephone Companies.

No. 226 \$4.50 Each Net
POLISHED BRASS
Jobbers Sell at
Factory Prices

THE TURNER BRASS WORKS

Dept. K. Sycamore, Ill., U. S. A.

RELIABLE COPPER —AND— IRON WIRE CONNECTORS

For Telephone and Electric Wires

All sizes from No. 0000 to No. 19 gauge
Split and Combination sizes

Write for Samples and Prices

RELIABLE ELECTRIC CO., CHICAGO



operators of the Sandusky exchange at a theater party.

Elizabeth Mary Shea, supervisor at East office, Toledo, has been confined to St. Vincent's Hospital by injuries she received while boarding a street car.

Illinois Division

C. H. Rottger, Correspondent,
Springfield

Streator Telephone Company Entertains

That Manager Patterson of the Streator Telephone Company, "knows how" is indicated by the following clipping from the Streator Independent-Times of March 20th:

If your telephone wasn't in the best working condition last evening, no matter—just forget it. For over in Good Will hall the employees of the company and their ladies or beaux were assembled for a jolly good time as the guests of the Streator Telephone Company.

The "trouble man" laid aside his troubles, and the wire chief and his linemen—who are adept at stringing wires—proved equally clever at "stringing" ladies fair.

"Number, please?"
"Sorry, but I'm busy for this one, won't the next one do?"

Has something of a familiar "ring" about it, now hasn't it? Well, that was something of the "line" of talk the operators were handing out to inquiring friends of the sterner sex as they wended their way through the merry mazes of the dance.

It was a character party and there were characters of various shades and hues—including some mighty nifty costumes, and some that were so funny they drew smiles on all sides. Manager A. R. Patterson appeared in the full regalia of the Scottish clan—a Highland Chief—and made some hit w/ his gay plaidie and fancy kilts, but hoot mon, wasna Jesse Hoobler there with the garb of your Uncle Sam? "Some class," sighed the girls, as they beheld Eddie Hall in his latest English togs, right smart in every detail, even to the monocle, ye know.

Then the girls weren't so slow, either. Gertrude Milburn, in lavender and old lace,

was the impersonation of girlish youth and charm, and Miss Ethel Haldeman made a charming gypsy. Just to prove what women really can do appeared Emily Burnell as the "cop on this particular beat," and she demonstrated conclusively she knew how to wield a billy.

So they danced and sang and stowed away the fine lunch prepared for them in a happy informal way, such as kids have a fashion of doing, and there were few ready to leave when home-going time arrived. Pouk's orchestra furnished the music and Manager and Mrs. Patterson led the grand march. There were between sixty and seventy present, including Traffic Manager Davenport, of Peoria. The affair was the biggest success of any ever pulled off by the telephone people, and that is saying a good deal.

Centralia District

O. M. Burgess, who has been in the service of the Central Union Telephone Company for many years, resigned his position as district commercial manager March 31st, to accept a position as telephone expert for the Illinois Public Utilities Commission.

Friends from the traffic, plant and commercial departments assisted Addie Pfeiffer, chief operator of the Centralia exchange, in celebrating her birthday March 1st. Games of various sorts and music were the chief pastimes of the evening. Miss Pfeiffer was presented with a beautiful ruby ring by her friends.

Work to provide additional cable facilities at Centralia was started April 7th under supervision of Foreman W. I. Thomas.

Sue Wood, toll operator at Centralia, resigned March 1st, to accept a position as private branch exchange operator in Columbus, Ohio. Leona Burns, formerly local operator, has taken the position vacated by Miss Wood. Louise Phipps takes the position of local operator.

H. G. Lankford, who has recently been in the service of the general office, as special agent, has been appointed district commercial manager of the Centralia District.

George V. Gould, who was in the service of the Central Union Telephone Company for several years in different positions in the Indiana Division, and who recently was Traveling Auditor for the Interstate Telephone and Telegraph Company, Aurora, Ill., has been

appointed commercial manager at Cairo, taking the position made vacant by the death of G. A. Schmutte.

Champaign District

Work has been started which will practically give Champaign a new power plant, including a forty-eight-volt battery. The estimate also calls for the renewal of all answering and lamp jacks on the local board, which with several other minor repairs to be made will put the Champaign equipment in first-class condition. Foreman Carl Meneely is in charge of the work, assisted by C. F. Knight.

Many enviable trips are being planned by the girls of the Traffic Department for their summer vacations. Ethel and Geneva Fleming leave June 15th for a six weeks' visit with friends in Denver, Colo. Lucile Rockwell is to spend a month in Eureka Springs, Ark. Many shorter trips have already been arranged for and we hope to get a camera record of the summer for a later edition of THE NEWS.

Helen Chodera, pay station attendant at Champaign, has been absent on account of a slight attack of measles.

The new arrivals in the traffic line-up at Champaign are Bertha Callahan, Nora Short, Irma Coake, Faye Feimle and Stella Hardsock.

As a result of good team work on cancelled calls, the Champaign toll force made a material improvement in showing on this item, as compared to past months.

Jewel Sullivan, of the toll force, has been appointed evening supervisor at Champaign.

The new method of ringing and supervising local connections at Champaign is bringing about a noticeable improvement in the speed of the subscribers' answers and is doing away with many of the "my bell rang," complaints.

Decatur District

A serious fire started in the fourth floor of the Powers Block, on April 7th, at 4 a. m., and before it was under control had swept the entire business block, which included the Linn and Scruggs Dry Goods Company, Decatur Railway and Light Company, Burtch Brothers and Schoenle Bank, Oldham, Stadler Insurance Company, American Express

SERVICE
on
orders



SERVICE
in
use

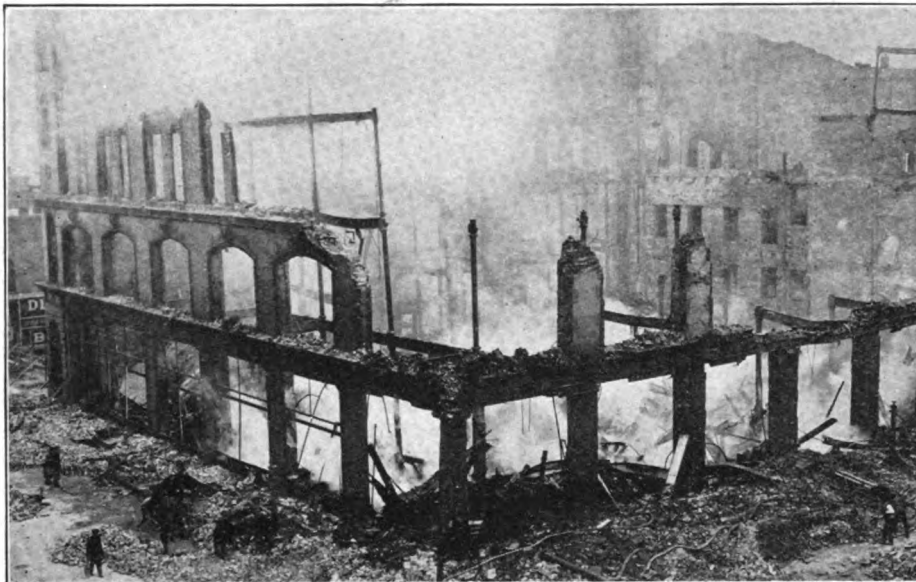
Both kinds of service are assured with

Western Electric BLUE BELL BATTERIES

Our system of distributing—carload lots from factory to distributing houses—insures a constant supply of fresh batteries.

A few words to the telephone men in your territory will convince them that their telephones need the BLUE BELL.

Western Electric Company



FIRE AT DECATUR, ILL.

Company, Nihart Drug Company, Powers Opera House and the Leavenworth Wholesale Grocery Company. The total amount of damage will reach \$750,000, which includes a loss of several thousand dollars to the Central Union Telephone Company.

Nellie Frederick, formerly toll supervisor, has been transferred to the position of observation operator at Decatur.

Galesburg District

Alta Hickman, formerly operator at Orion, Ill., a connecting company exchange, has taken a position as operator at Galesburg.

Arva Blount, operator, has resigned to take a position as operator at Davenport.

Juanita Lewis has returned to the Galesburg exchange after working several months in the commercial department at Rock Island.

E. S. Cox, proprietor of the Cox Telephone exchange at Alpha, Ill., was a caller at the Galesburg exchange recently.

A private branch exchange, consisting of a No. 4 switchboard and eighteen stations, has been installed in the general offices of the Boss Manufacturing Company at Kewanee.

Kankakee District

The Kankakee employees gave their first annual ball on Thursday evening, February 19th, and the event proved a very great success. The hall was profusely and artistically decorated with blue and white crepe paper and Central Union Telephone Company lamp shades. Attendance was about 500. A fine luncheon was served in connection with the ball.

Mary Miller, night chief operator at Kankakee, is wearing a sparkler, and not on her right hand, either.

Nellie LeBeau, collector at Kankakee for the past two years, has resigned her position—she says to stay at home.

Mary Gray is working extra on the Kan-

kakee toll board, succeeding Gertrude Cox, who resigned and returned to her home in Carbondale, Ill.

Louise Dahling, toll operator at Kankakee, resigned to accept a position as private branch exchange operator at the David Bradley Manufacturing Company.

Jesse B. Sawyer is a new employee, in charge of plant at Gilman, Ill.

H. E. Thayer is again with the Central Union Telephone Company, in charge of plant at Grant Park, Ill.

M. E. Eyler, of Momence, Ill., is now repairman at Onarga, Ill.

R. L. Hutton has been appointed stockman at Kankakee, succeeding Irving F. Ashton, who resigned to enter the grocery business.

Charles Murphy, a former employee at Kankakee, but for the past year with the Mountain States Telephone Company of Denver, Col., is again with us in the capacity of collector.

Meta Christensen, former chief operator at St. Anne exchange, spent the past four months in Sacramento, Cal., returning to her home recently. She reports an enjoyable trip.

La Salle District

Collecting by mail was started at LaSalle exchange March 1st and proved a grand success. Subscribers appear to be better satisfied than under the old system. LaSalle exchange covers LaSalle, Peru and Oglesby. In the three towns it will not be necessary to disconnect five telephones for non-payment. One of the greatest benefits derived in this system of collecting is that the usual small accounts are wiped out. Our exchange shows better balance on the right side of the ledger by over \$800 than ever before. Seneca, under the same system, has, up to date, all in but two accounts.

Helen Feeney, toll operator at LaSalle, has resigned to accept a position as stenographer in Dr. Greaves' office.

Several of the girls of the traffic department are wearing diamond rings.

Paris District

The Stratton Mutual Telephone Company of Vermillion disbanded April 1st.

Frank Drake and Ezra Thornton have taken positions as repairmen at Paris.

J. H. McMullen, Frank Warner and B. E. Perry, Western Electric men, have completed the installation of 200 additional multiple jacks and the rearranging of 20 rural lines at Charleston.

Owing to the increased business, the Mattoon construction men have been transferred to Charleston to help build thirty-five miles of rural lines.

The office at Charleston, Ill., has undergone a coating of paint and paper, and the rest room has been furnished with a new rug and furniture since the new manager, Mr. Moss, took charge.

Minnie Walton, one of the pioneer telephone operators at Charleston, who has been out of the office for over a year, has been helping as extra on toll for the past few weeks.

Peoria District

Sadie Wood has resigned her position as clerk in the commercial department at Peoria to accept a position with the Peoria and Pekin Union Railway Company. Mary Holt-schlag succeeds Miss Wood.

B. F. Maben, formerly employed at the Peoria exchange, has returned and has accepted a position as installer.

Quincy District

Frank Dunham, traffic chief at Quincy, resigned and returned to Chicago, his former home, and accepted a position with the Chicago Telephone Company in the traffic department. Anna Mitchell, chief operator, has been promoted to traffic chief, to succeed Mr. Dunham.

Bethel Wade, clerk in the commercial department at Quincy, resigned and was married on April 8th to Leo Edwards, installer.

New contracts have been secured for a private branch exchange in the Stationers' Manufacturing Company's office, to consist of one trunk and seven stations.

Quincy has always had trouble from dampness in the terminal rooms. Since the election we have found out the reason. Quincy is a very wet town.

Rockford District

Lulu Kendall has been appointed instructor at Rockford. Anna Bonzle succeeds Miss Kendall as senior supervisor.

Mrs. Earl Lake, formerly Audrey Smith, toll supervisor at Rockford, has resigned and is succeeded by Jeanette Hurst.

The following have been named supervisors at Rockford: Sara Leason, Erma Kelley, Frances Andrews.

Wesley Dunning of the plant department has resumed work, after an absence of about three months, due to typhoid fever.

All departments of the Rockford exchange were well represented in the amateur theatrical musical comedy entitled "The Frolickers of 1914," given by the Knights of Columbus at the Grand Opera House on the evenings of April 20th and 21st. Mary Burke, clerk in the commercial department, took part in the special chorus. Miss Burke is a vocalist of ability, possessing an unusually charming contralto voice. Leone Martel, toll operator, made one of the biggest "hits" of the entire performance in her solo "Good-bye to Flirta-

NATIONAL

Double Tube Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO



ANNUAL DANCING PARTY GIVEN FOR TELEPHONE EMPLOYEES AT GRANDRAPIDS, MICH., BY VICE-PRESIDENT DUDLEY E. WATERS.

tion." Miss Martel has a beautiful soprano voice and Rockford artists predict a very brilliant future for her if she chooses to continue her work in this line. Michael McMarren, of the plant department, splendidly acquitted himself as "Attorney Squibbs" and also took part in the double quartet. There are many talented people among employees of the Rockford exchange and their friends are proud to see them making places in the musical world.

Rock Island District

April 2d Charles F. Freer, chief tester at Rock Island, was pleasantly surprised by some twenty-one friends and admirers, who gave a chicken dinner in his honor. It is said that "Chick's" face became ghastly the moment he gazed upon the sumptuous spread and smiling faces; and after the dinner he nearly expired when he was forced to accept a perfectly wonderful watch chain with a cigar cutter attachment. The evening was spent in song and talking over old times and everyone wished Mr. Freer many happy returns. (One hardly dared to ask him how old he was, but it is rumored he told some of his intimate friends that he will never see thirty again.) Needless to say, the motive for the occasion was one of absolute good will and appreciation of pleasant associations in the work around Rock Island. Appropriate decorations were in abundance that evening and consisted of chickens and sweet peas.

Nita Lewis, recently transferred from Galesburg, has returned to that place. On election night the heaviest loads in the history of this area were handled by the local force and they kept up at top speed for nearly two hours. The board resembled a condition similar to that when the fire whistle blows. Several subscribers heard of this and paid the exchange a visit. They were greatly interested in watching the girls at their speedy work.

Bloomington sent Rock Island a good local operator. Her name is Mary Frische.

During Miss Swanson's absence Ina Hingstrom acted as chief operator at Moline.

Mary Robbins has been appointed matron of Rock Island exchange.

Pearl Somerson, of the Moline operating force, died during March. Much regret was expressed among her associates.

Springfield District

Elizabeth Mallon, toll operator, has taken a month's leave of absence. She is spending the time with her sister in Chicago.

Anna Eck, stenographer in the district traffic chief's office, who has been ill for some time with typhoid fever, is able to resume her duties. She has been transferred from the district traffic chief's office to the office of the traffic superintendent, and is succeeded in her former position by Alice Feeney.

On March 9th the H. G. L. Club, which is composed of telephone girls, played basket ball with the Advanced Business Girls' Gymnasium class of the Y. W. C. A. Owing to the excellent playing of the captain and her team, the game was won by the H. G. L. girls, the final score being 25 to 15.

The Fiducia Club met at the home of Florence England Friday, March 27th. The evening was pleasantly spent in games and music.

The Fiducia Club met at the home of the Misses Stella and Buelah Boyce on March 10th. Guests of the club were: Miss May, Miss Hall and Miss Fox. The evening was spent in playing "Hearts." The first prize, a vanity case, was won by Elizabeth May.

Students are being instructed in operating so that they will be able to fill the positions of local and toll operators during vacation time.

The Blue Bell Club was delightfully entertained by Mary Sharples and Louise Abbott at the latter's home Friday afternoon, March

20th, from 2 to 4:30 p. m. The following officers were elected: Beasie Reisch, president; Helen Amba, vice-president; Mattie Hudson, secretary; Florence Binney, treasurer; social committee, Louise Abbott, Mary Sharples, Dorothy Jones; sick committee, Hazel McClelland, Mrs. Grace Morris. The permanent and semi-monthly passwords were adopted and other business transacted. Luncheon was then served. Later in the evening the guests were entertained by musical and vocal selections rendered by Mary Sharples and Dorothy Jones.

Michigan Division

David H. Dodge, Correspondent,
Detroit

Ball at Grand Rapids.

Dudley E. Waters, vice-president of the Michigan State Telephone Company, was the host at a delightful dancing party given on Monday evening, April 20th, at Press Hall in honor of the employees of the Grand Rapids exchange. This was the ninth annual party given by Mr. Waters at which the telephone company employees were the invited guests and it proved to be the most successful perhaps of any of the series which have preceded it. About 250 guests were present.

Mr. Waters proved himself to be a master of all the latest innovations in the terpsichorean art, and the artistry he displayed throughout all the evening in the tango aroused the admiration of all present. Marian Weaver and George W. Johnson inspired frequent applause by their delightful dancing of the picturesque and extremely graceful Brazilian Maxixe. They were recalled and repeated the dance. The dream



Door Open

The "French" FOLDING DOOR Telephone Booth

(Patent Pending)

ABSENCE OF LATCHES OR CATCHES: The design of the FOLDING DOOR is such that it will remain open or closed without the use of latches or catches. This is one of the many advantages of the FOLDING DOOR telephone booth.

Write for booklet describing the advantages of the "Folding Door" Booth

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

DISTRIBUTORS:

Western Electric Company

Houses in all principal cities



Door Closed

waltz and other new steps were danced throughout the evening by Sadie Nell and "Ernie" L. Wellman, Josephine Emmer and "Steph" Pierce, Blanche Christiansen and Roy Gardner, Blanche Martin and Ray Sackett. Later in the evening a rag cotillion was led by C. E. Waite, "Bill" Simmons, Jack Fitzpatrick and "Dad" Saunders.

Many of the gowns worn by the girl dancers were beautiful. Sadie Nell wore a lovely gown of black charmeuse, trimmed with lace and bordered with fur, and a girdle of royal blue. Josephine Timmers wore a dancing frock of pale pink taffeta, with white shadow lace bodice. Blanche Christiansen wore a charming gown of mahogany charmeuse and lace.

Delicious refreshments were served in the dining-room adjoining the hall, and the appreciation of this feature of the evening was manifested by all. Amelia Palmer presided at the punch bowl, and was ably assisted by "Johnnie" Fitzpatrick. He was heard to say that the punch was the "best ever."

The flashlight photograph which is a good one shows Mr. Waters in the second row, and Mr. Wilde (district manager) in the first row. It is plain to be seen that Jack Loeks (fourth row) is enjoying the novelty of having his picture "took."

Mr. Waters, besides being a vice-president and director of the Michigan State Telephone Company, has many other business interests in Grand Rapids. He is chairman of the board of directors of the Grand Rapids National City Bank, and is one of the receivers of the Pere Marquette Railroad Company, and is a director in many other enterprises. It seems, however, that none of these many business interests cause him to overlook the annual telephone dance, and his own obvious enjoyment of the occasion adds to the pleasure of all participating.

A Little Piece of Submarine Cable

A short piece of five-pair submarine cable—1,160 feet long—was laid March 30th between Grosse Isle and Stony Island, in the Detroit River, about fifteen miles below Detroit, for a more than usually interesting business. It is the business carried on by the J. W. Westcott Company in Detroit.

This company represents the owners of freight-carrying vessels while the boats are passing through the river between Lake Erie and Lake Huron, or as the founder of the business once expressed it, the company is a general wet nurse for these boats. It notifies all persons concerned of the times and movements of these vessels when in this stretch, especially while navigating the dangerous Ballard's Reef, and while going up or down the new Livingston Channel. In this work it is also an employee of the United States Government. The company's private line terminals are located one on each side of the channel, at Amherstburg, Ont., and on Stony Island. The latter lies east of Grosse Isle, which is east of Wayne County, Mich., and which gets exchange service from Trenton, directly opposite, through seventy-five-pair and fifty-pair submarine cables. It is the submarine connection between Grosse Isle and Stony Island that has just been laid. This cable, which is a No. 22 armored, is anchored to the bottom, so as to prevent chafing. The shore ends are placed in trenches so that anchors or shore ice will not cause any injury to it.

The former Detroit River Telephone Company used to furnish the Westcott Company with a twisted pair for service between the islands, renewing the pair each time the insulation was impaired or whenever it was swept away by the rapid current of the Detroit River, which is said to be seven miles



C. L. BOYCE.

an hour at this point. Hence the demand for a reliable cable.

The T. W. Westcott Company gets direct service from its office, at the foot of First street, to its Stony Island station, through the main and Cedar offices in Detroit and through the exchanges at Wyandotte and Trenton, with, of course, magneto instruments, and similarly, as regards its Amherstburg station, across the Detroit River to Windsor and down the Canadian shore. Service through the new submarine cable was scheduled to be ready by April 15.

The contracts were secured by Special Agent G. R. Heywood. The cable was laid under direction of Assistant Plant Superintendent C. E. Gardner.

School Debate on Government Ownership

One of the subjects for debate at the Detroit College of Law, the evening of April 3rd, was: "Resolved, that government ownership and operation of the telegraph and telephone system is proper."

The debate resulted in victory for the negative.

Speakers for the affirmative side laid much stress on the following points:

Present high rates compared with Germany, England and other foreign countries. Detailed statements of receipts and expenditures in European countries were made.

Present governmentally owned and operated postal system, indicating that the excellent service furnished the public might also be expected in other governmentally owned departments.

Profits from a public necessity should go to the users and not to a few stockholders.

The opponents on the negative side were able to demolish the above arguments with-

out much difficulty. They showed the injustice of making the people, as a whole, through taxation, pay the bills for the people actually using the service. They brought out strongly the evil of taking away the incentive to strive for betterment and growth by removing the opportunity for advancement and the recognition of ability. The phrase "To the Victors Belong the Spoils" impressed the judges, as pointing out the opportunity for political manipulation of the governmentally owned system.

The above debate is merely a part of the training of the students of the Detroit College of Law, but the character of the college is so high that many of the young business men of the city are studying law there. Many of these attended the debate, and the verdict was without doubt a popular one.

Professor Jaynes, who has charge of the class, remarked afterwards that it was evident the speakers for the negative side had carefully studied the last report of the American Telephone and Telegraph Company. As a matter of fact, this was so. They had also had copies of the speeches of F. H. Bethell and T. P. Sylvan (the latter given at a meeting of the Richmond Telephone Society).

Resignation of C. L. Boyce

Charles L. Boyce, engineering and plant counsel of the Michigan State Telephone Company, resigned March 31st, after thirty-four and a half years of continuous service in the telephone business. Mr. Boyce will take up farming.

Mr. Boyce began his telephone career October 8, 1879, as a combination lineman and night operator at Muskegon, Mich. He was then twenty. His experience to the present day has been so varied that a simple list of the positions he has filled cannot fail to be of interest.

Telephone & Telegraph Const. Co. Operator, Lineman, Manager. Muskegon, Oct., 1879, to Nov., 1888.

Telephone & Telegraph Const. Co. and Michigan Telephone Company. Manager. Grand Rapids, Nov., 1888, to Nov., 1890.

Michigan Telephone Company. Supt. of Equipment. Detroit, Nov. 1890, to Jul., 1898.

Michigan Telephone Company, Wisconsin Telephone Company, Northwestern Telephone Company, Southwestern Telephone Company. General Supt. of Equipment. Headquarters Detroit, Jun., 1899, to Jul., 1909.

Michigan Telephone Company, Wisconsin Telephone Company, Northwestern Exch. Telephone Co. General Engineer. Headquarters Detroit, Jul., 1901, to Aug., 1903.

Missouri & Kansas Tel. Co. General Supt. Kansas City, Aug., 1903, to Apr., 1904.

Michigan State Tel. Co. Engineer. Detroit, Apr., 1904, to date.

Michigan State Tel. Co. Plant Supt. Detroit, 1911.

To these items may be added a short period during 1899-1900 when he took the position of manager of the Citizens' Telephone Company at Grand Rapids, but the opportunities for advancement not being so promising in so small a company as the Citizens' was at that time, Mr. Boyce resigned and returned to the fold in this part of the country—the fold at that time being the Erie Telephone Company; it was a pretty large fold, too, while it lasted, its fences stretching from Minnesota to Texas. Mr. Boyce was also a director of the Michigan State Telephone Company for about one year.

While with the Missouri & Kansas Telephone Company, as general superintendent, Mr. Boyce had to cope with a disaster which called forth all his capabilities. A destructive

Safety First



Electricians' GLOVES

Tested to 4,000 and 10,000 volts before leaving our factory.

Made of Fine Para Rubber.

The I'nemen prize them.

Special gloves made and tested to higher voltages.

Write for prices and details.

CANTON RUBBER CO.
Canton Ohio

NATIONAL PINS and BRACKETS

SUPPORT THE WIRES from COAST to COAST

WE make EVERYTHING in the line of

WOODEN INSULATOR PINS AND BRACKETS

Order through the WESTERN ELECTRIC CO.
BRANCHES or any of the LARGE JOBBERS

NATIONAL PIN & BRACKET CO.

MADISON, INDIANA

fire in Kansas City, in October, 1903, swept away all the telephone switchboards in the Main building. Service was restored in nineteen days. For the conspicuous part he played in this memorable achievement, Mr. Boyce received a letter of thanks and appreciation from Frederick P. Fish, then president of the American Telephone and Telegraph Company. Another of Mr. Boyce's prized possessions is a diamond ring given to him in 1905 by Alonzo Burt, then president of the Missouri & Kansas Telephone Company, as an appreciation of his excellent work, not only at the time of the Kansas City fire but throughout his period of service.

C. L. Boyce is the inventor of two pieces of telephone equipment. One is the No. 8 Western Electric switchboard, a common battery board, which—at the time of its invention, though now obsolete—resulted in a marked economy in operation, giving the operators the functions of a No. 1 board at considerably less expense. The other is the standard—the vertical part—of the present portable or "desk" telephone; this is still being manufactured as the inventor originally designed it.

Mr. Boyce has "gone back to nature" and is going in for intensive farming near Ann Arbor. His property consists of twenty-one acres, with 165 fruit trees and beds. This property he has, appropriately named "The Blue Bell Farm."

The Blue Bell fruit is to be of the highest quality, and it is anticipated that the Blue Bell peach—which will then not refer solely, as it does now, to a telephone operator—will sweep the country.

Mr. Boyce retires from the Michigan State Telephone Company to the great regret not only of those who have worked with him, but also the employees in other departments. General Manager von Schlegell presented him with the desk and chair he had occupied during the many years he was with us—an attention which the new farmer much appreciates, for, he says, he has naturally developed a great fondness for those pieces of furniture.

Telephone Society of Michigan

The successful candidates for officers of the Telephone Society of Michigan, at the election March 25th, were: President, Martin Ewald, plant; vice-president, George Solomonson, plant; treasurer, E. H. Eyre, commercial (re-

lected); secretary, C. E. Culver, commercial (re-elected); Rodney Weeks, governor for commercial department. Mr. Ewald made a short but vigorous inaugural speech in which he promised to work hard to increase the membership.

Other new officers made short speeches.

Detroit District

The regular monthly meeting of the commercial department was held in the Society room, on the evening of March 26th. C. S. Slack gave an interesting talk of forty minutes, after which a general discussion ensued. The contract period was analyzed in detail. Because of extra office work that has occupied Mr. Slack's time, the efficiency course mentioned in a previous issue was not taken up. Plans for this course will be made in the fall.

W. R. Harris, of the commercial superintendent's office, resigned in April, after several years with the Michigan State Telephone Company, in plant and commercial departments. He had also had experience with the Manitoba government telephone. Mr. Harris has gone into the real estate business.

Marie Kelly, supervisor at the East and Cedar offices for the past six years, has been promoted to succeed Myrtle Zink as instructor in the operators' school.

The following promotions took place in the Hemlock office: Mabel Woehl was promoted from supervisor to senior supervisor; Emma Albright from senior operator to supervisor; Emily Kellogg from operator to senior operator.

F. L. Johnson, formerly service inspector at Saginaw, has been appointed traffic chief of the North, Hemlock and Walnut offices to succeed H. V. Weed, now traffic supervisor. Mr. Weed's offices presented him with a very beautiful Gladstone bag.

Ruby Field and Pauline Liebeton, Walnut office, were promoted to supervisor.

Anna Robinson, long-distance operator, was quietly married February 24th to Orville Thrasher. Several of the girls gave a shower for her at her home on February 18th.

Myrtle Zink, instructor at the operators' school, resigned to be married April 15th to Vern Meyers. Miss Zink has been with the company four years, during which time she has not lost a day, and has been an excellent instructor. The girls gave a shower for her at her home, and presented her with a ma-

hogany chair. Mr. and Mrs. Meyers will be at home to their friends after May 1st at 505 Delaware avenue.

Mary Exton, Walnut office, resigned to be married March 31st to Alfred Hayek. The girls gave a miscellaneous shower for her at her home, where she received a number of pretty things.

Margaret Faber of the Main office is now Mrs. Elmer Brisbols. Miss Faber has been in the employ of the company for a period of seven and a half years, during which time she was operator at the West office for four years, chief operator at the Cedar office for two and a half years, and monitor at the Main office for one year, filling this position at the time of her resignation, April 1st. Miss Faber leaves the company with the congratulations and best wishes of many friends, in proof of which she was presented with two beautiful pieces of cut glass.

A meeting for the chief operators and supervisors of the various offices in the city was held Monday, March 16th, in the Telephone Society Room at the Main exchange. This proved to be a most interesting meeting, the feature of the evening being stereopticon views. The views illustrated the progress of telephone work, the first views showing the first telephone and gradually leading up to the present modern equipment. An operating room operated entirely by boys caused quite a bit of amusement among the girls. Views of operating rooms in foreign countries also proved most interesting. The damage done to the telephone by storm was shown by various views of the great flood in Ohio. The views showed the many difficulties linemen encounter and how they are overcome. The underground work was illustrated by views of the recent cut-over of the Home and Bell Companies in Detroit. Many other features of telephone work were shown which proved not only interesting but also instructive. Mr. Spencer, traffic superintendent, explained the views in his usual interesting and amusing manner, which added greatly to the pleasure of the evening. A musical program followed. After this refreshments were served, and dancing followed. Program: Vocal solo, Miss Brogull, Ridge office; recitation, Miss Norwood, chief operator, Cedar office; vocal solo, Miss Cozzen, accompanied by her sister; recitation, Miss Schultz, Cadillac office.

F. L. Johnson, traffic chief at the North, Hemlock and Walnut offices, called a "get together" meeting of the employees of his of-

TRADE MARK
OSHKOSH

IF you haven't been getting the best Construction Tools to be had, get in touch with your nearest Jobber or any of our Representatives who handle this line—because they know that if ever any better tools are made, OSHKOSH will make them.

OSHKOSH MFG. COMPANY
OSHKOSH, WIS.

Representatives or Branch Offices:

NEW YORK—E. P. Morris, 90 West St.

PHILADELPHIA—F. K. Simons, Morris Bldg.

PITTSBURGH—Union Electric Company

CHICAGO—R. L. Thayer, 409 S. Clinton St.

SAN FRANCISCO

LOS ANGELES

SEATTLE

PORTLAND

REGINA—Deering Electric Company

WINNIPEG—J. A. McEachren

Pacific States Electric Co.

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

THE EVERSTICK ANCHOR CO.

ST. LOUIS, MO.

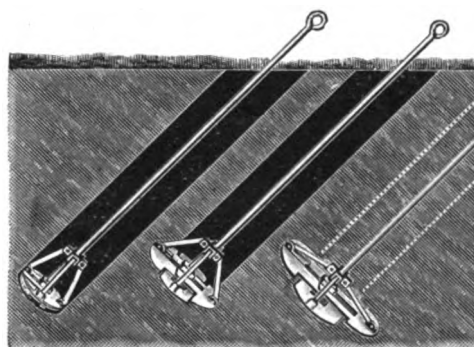


Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.



WINNING B SECTION.
Hemlock Office, Detroit.

ances in the Society Room, Main building, on the evening of April 6th. W. A. Spencer, traffic superintendent, and Mr. Johnson gave very interesting talks on the service and co-operation. E. C. Laskey entertained the girls with a number of his funny stories that are always enjoyed so much. The following musical program was given: piano solo, Helen Jaska, Walnut office; piano solo, Hazel Pearson, Hemlock office; vocal solo, Leora Stevens, chief operator, Walnut office; and piano solo, Miss Hattery, Hemlock office. At the close of the program delicious refreshments were served, and the rest of the evening was spent in dancing. Everybody had a good time and the evening proved to be very enjoyable.

The Cadillac operators, having collected \$21.25 as a donation to the Detroit Tuberculosis Fund, it was acknowledged by the following letter of thanks:

"To the Cadillac Operators,
Detroit, Michigan.

The Board of Trustees of the Detroit Tuberculosis Sanatorium wish to express to you their sincere appreciation and gratitude for the generous contribution toward the building fund of the Sanatorium.

Contributions are coming in rapidly and we are deeply grateful to each individual interested in this splendid donation.

Very sincerely,

MAUDE VAN SYCKLE,
Executive Secretary."

The third day section of the Cadillac exchange were the prize winners of the February contest. Cecil Poole, supervisor, and the operators, enjoyed seeing "Graustark" at the Washington Theater Monday evening, March 9th. Miss V. von Walthausen, assistant chief, and Miss E. Poole, supervisor, chaperoned the following girls: G. Schulz, S. Dixon, E. Peters, M. Heise, L. Hoffman, K. Tomas, M. Stiller, J. O'Connor, M. Jablonske, and O. Nicolson. An invitation was also extended to Miss Hoffman, day chief operator who, being unable to go, was presented with a box of "MacDiarmids."

The second day B section were the prize winners for February. They enjoyed themselves by seeing "Frunella" at the "Garrick," also having plenty of "MacDiarmids," which helped to make the evening a pleasant one. The winning B section is made up as follows: Top row, Olive Jubenville, Florence Busch (senior operator), Irma Olsen, supervisor, Hattie Naumann. Lower row, Gladys Stewart, Rose Gareau, Ruth Ely, and Grace Schlickemayer. The third A evening section won the prize for February, and they enjoyed "The Trail of the Lonesome Pine" at the Detroit Opera House, where they were chaperoned by Gertrude Carney, relief chief operator.

The tenth Main A division were the winners for March. Lena Krick, supervisor, and the girls are looking forward to an Easter theater party.

The second Main B division won the contest for March. Etta Black, supervisor, and the girls will attend the theater after Easter.

The Cherry A fifth division won the contest, with Mary Wilson as supervisor.

The second evening B section, with supervisor Miss Low, Walnut office, won a prize of \$10 for the month of March, for having no errors at all.

The second day section supervisor, Miss Warner, Walnut office, had 100 points for the month of March.

Walter N. Dalley, chief clerk of the Detroit district plant department, resigned April 1st. A banquet was given in his honor at the Edelweiss restaurant, seventeen persons being present. Martin Ewald was toastmaster. Speeches were made by W. C. Kirk and by George Brown. Mr. Dalley himself made a speech of a humorous nature. He has been with the telephone company two years. He left to accept a position with the DeWitt Auto Company.

Eastern District

Clarence Dusenberry, commercial agent, has resigned his position in Pontiac.

Thomas O'Brien, stockman at Pontiac, has resigned to take a position with his father in the coal business at Rochester, Mich.

A peculiar accident occurred in Pontiac recently, due to the derailing of several runaway freight cars at the junction of the Grand Trunk Railway and Air Line Railway. The derail threw the cars over the embankment into the street, completely burying the cable terminal and pole of the main toll lead to Detroit. Temporary work had service restored in two hours.

A No. 4 private branch exchange with three trunks and fifteen terminals has just been installed for the General Stores Company at Pontiac, which is one of a chain of stores being organized by E. D. Knox, the well-known five and ten-cent store promoter.

Cableman McCarren, of Pontiac, has been overhauling cable plant completely at Clarks-ton.

Pontiac Switchboardman G. G. Booker spent several days at Orionville, making repairs to the switchboard of the connecting exchange owned by F. D. Brigham.

The Western Electric Company, with Foreman Fagrellus, has started work on a \$12,000 estimate for installing three new sections of toll board, three new A positions on the local board and 300 subscribers' multiple at Pontiac.

Lineman Douglas Lane, who met with an accident October 24, 1913, has returned to his duties in Pontiac.

Harry Stowell, installer No. 1, has succeeded G. G. Booker as testman at Pontiac. Mr. Booker has been assigned as switchboardman, succeeding E. Frazier, resigned.

John Brady has succeeded Jasper Van Sickle as toll repairman at Pontiac.

Charles J. Meldrum has superseded Clarence Delgelish as stockman at Pontiac.

Fred E. Chapin has been appointed manager at Birmingham, succeeding J. M. Kelley. J. D. Hull has been made manager at Dearborn, succeeding Ruth A. Patchett, cashier and acting manager.

Grand Rapids District

M. D. Fry has succeeded I. V. Fry as manager at Dorrr.

The Blue Bell Club met at the home of Olive Gillespie the evening of April 2d. Following the business session, Ella Bocher and Pauline Witfoth gave a piano duet. A pretty luncheon was served, St. Patrick decorations being used.



BASKETBALL TEAM.
Jackson, Mich.

The Bell Social Hour met in the reception room at the Main office, March 23d. The meeting was called to order by Frances Strickland, president. These new officers were chosen: Josephine Timmers, vice-president; Bernice Gillo, secretary and treasurer. Matilda Leonard was appointed chairman of the entertaining committee. April 6th a social meeting was held at eight o'clock; forty members were present. The room was decorated with blue bells. The evening was spent in playing games, a vocal duet was given by Margaret Lee and Sadie Nell, accompanied by G. W. Johnson, violinist. A dainty luncheon was served.

Jackson District

Madeline Filtzaimmons has taken a position as toll operator in the Jackson office. For the past year she was employed at the L. H. Field Company. Previous to this she was relief toll supervisor.

The Jackson Basket Ball Team enjoyed pot-luck suppers before practice March 11th and 18th. Was it the practice, or the pot-luck supper, which resulted in so much silence at the toll-calls on the 12th and 19th?

The Jackson local department feels very proud of the decided decrease in local complaints for March. The toll department is equally as proud over the increase in toll business handled in March, which was an increase over February of 1,250 "Out" Michigan State. A decrease of cancelled calls was also noticeable. The completed Michigan State calls for March is the highest number reached since June, 1913, which was only 200 greater. The increase over Michigan, 1913, is more than 1,000, and over Michigan, 1912, is nearly 2,000. The A. T. & T. figures for March show an increase over February of more than 150 "out" calls. An increase over Michigan,

Partridge & Anderson
Designers
Engravers
Electrotypers
Stereotypers
ENGRAVINGS IN THIS PUBLICATION
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
100-16 N. Fifth Ave. Chicago
AUTOMATIC 31-757 31-758

ELECTROSE
TRADE MARK
INSULATION
INSULATORS 1,000 TO 1,000,000 VOLTS
No. 2 No. 1 No. 7
No. 505 New No. 10 Old No. 10
LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
60-72 Washington St. BROOKLYN, N. Y.
44-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES



Yours for the Asking!

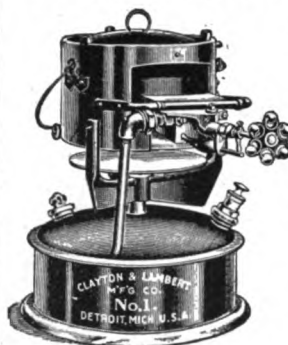
WRITE FOR A COPY
Mailed FREE on request.

It contains a lot of information about tools of all kinds. You'll find it handy. We'll gladly send you a copy without charge.

Mathias Klein & Sons

Canal Sta. 62 Chicago
Phone Wabash 628

The Real Test of a Fire Pot



No. 1 Fire Pot

is the work it will do in actual service. Mechanics everywhere recognize the "C. & L." No. 1 Fire Pot as the most serviceable and the greatest general utility Fire Pot on the American market. It produces the maximum heat with the greatest economy of fuel. A pot of lead can be melted and a pair of 12 lb. soldering coppers heated at the same time, if desired. The top section is removable, permitting an open fire—often a great convenience.

All leading jobbers will supply at factory price. Our Catalog is free—send for one.

Clayton & Lambert Mfg. Co.
Detroit, Mich, U. S. A.

1913, of 100 calls and Michigan, 1912, nearly 50. The completed A. T. & T. business handled from the Jackson office is the highest handled since January, 1912, which time is the earliest our records show. A fine decrease is also shown in the cancelled work. Of the twenty tributaries center checked by Jackson each one says there is improvement in the service in the last four months. It is anticipated there will be still greater improvement in toll service, in general, since the rearranging of the toll board, the "out" and "in" positions having been arranged separately. This method is working very satisfactorily since it was begun April 3d.

Thursday evening, April 2d, the chief operators, supervisors, senior operators and commercial girls enjoyed a pleasant pot-luck supper in the rest room of the building. Covers were laid for twenty, the table decorations being pink and white. All had such a good time that they decided to have a "get together" supper at least once in two weeks in the future.

Kalamazoo District

Estimates have been approved covering the installation of two additional sections of switchboard at Benton Harbor, one toll and one local section, the work to be done by the Western Electric Company. To provide sufficient floor space in the operating room to accommodate the additional sections, it is necessary to rearrange the commercial office, public office, and operating room. Contracts have been let for this rearrangement. The system of lighting the switchboard will be changed from trough to overhead.

Marquette District

Hanley toll station, belonging to the Munising Telephone and Electric Company, has been discontinued.

The estimate covering outside reconstruction at Negaunee was completed March 25th.

Lansing District

Minnie Cetus, local operator at Lansing for the past five years, resigned to be married March 14th to Ralph Smith.

On Wednesday evening, March 18th, the

Lansing operators gave a party in the retiring room in honor of Mrs. Smith. A Bohemian lunch was served and a merry time is reported by all who attended. Mrs. Smith was presented with some beautiful pieces of cut glass. The invited guests were Manager and Mrs. Darling.

Petoskey District

Effective April 1st, O. A. Solomon, manager at Boyne City, was transferred to Charlevoix, vice E. E. Frambes, resigned. Burr R. Sage is appointed manager at Boyne City. During the past winter Mr. Sage has been with the Traverse Bays Telephone Company.

The Traverse Bays Telephone Company has completed the move into its new quarters at Bellaire.

Edith C. Larson has been appointed cashier at Manistee.

Edna Hoffman has been promoted to the position of evening chief operator and collector at Manistee.

Meta Steffens, who for the past three years has been collector and assistant chief operator at the Manistee exchange, resigned March 15th and left the city for Detroit, where her parents expect to reside. Before leaving she was presented with a beautiful set of fruit knives by the operators.

Mayme Peterson, who has been for the past nine years an employee of the Manistee exchange, and for the past five years its cashier, resigned April 1st. Before leaving Miss Peterson was presented with a handsome cut glass dish by all of the employees.

Marle L. Kethledge who has been typist and clerk in the commercial office at Petoskey, was transferred April 1st to the traffic department. This change resulted from the centralized accounting plan and the abolishment of the Petoskey area. Miss Kethledge is going the rounds of the different departments and should soon be in position to superintend a telephone plant. A year ago last November she started in as plant clerk, acting also in the capacity of test "man." Last September she was transferred to the commercial department. She has made a splendid "office hand" and as a "behind-the-counter" artist she cannot be beaten, taking

care of rush business with the cleverness of an expert. If Miss Kethledge takes to operating as she does to commercial work, look out for some broken records.

Mabel Crane, operator at Petoskey exchange, left the service April 1st, not disgruntled, but on the contrary one of the happiest girls in the land. Hereafter her friends will address her as Mrs. Parrish.

J. W. Clark has taken the management of the Pellston exchange and since March 1st has added a number of new subscribers. Mrs. Clark looks after the operating and office work and Mr. Clark takes care of the plant work and the exchange development.

Manager Solomon of Boyne City has accepted an offer for the sale of one of his long farm lines which runs through Advance, and hereafter it will be known as the Pine Lake Peninsular Telephone Company. Practically every subscriber on the line took stock in the new company, and others who did not before have telephone service became interested. When the additions are made, there will be three lines, instead of one, with a total subscription list of thirty. Manager Solomon also has just completed the organization of the Horton Valley Telephone Company. Construction work is well under way.

Port Huron District

Glen Munday succeeds Frank Farley as manager at Metamora.

Blaine toll station has been discontinued. Hereafter Blaine will be considered a Class D office on Jeddo, a connecting exchange operated by W. T. Lamb.

The Armada chief operator, Mrs. Bertha Van Inwagin, and operator No. 1, Ruth Campbell, resigned March 15th to take up other work. Mildred Ormsby was promoted to chief operator.

Minnie Blewer, cashier at Mt. Clemens, has resumed her duties after a short illness.

Margaret Haller, chief operator at Mt. Clemens, has resumed her duties after a short illness.

Foreman Ferris, of the construction department, with his crew has completed the rebuilding of the Mt. Clemens exchange.

Saginaw District

Extensive toll line repairs in the Saginaw District have been completed.

Harrison toll station has been moved to the drug store of M. Fanning, who has succeeded Hughes Brothers as manager.

Plant Chief Chandler is stepping very high these days, the reason for this being the Michigan State Telephone Company's new "Ford" which has long been needed to meet the requirements of the plant chief in Saginaw.

Office girls of the Michigan State Telephone Company to the number of sixteen gathered at the home of Mr. and Mrs. James H. Boardman, 546 South Weadock Avenue, the night of April 3rd, for a farewell party. Mr. Boardman, who has been equipment foreman in the plant department of the district offices here, will take a similar position in Port Huron. The Boardman home was attractively decorated in yellow and white with features suggesting the Easter season. Dancing was enjoyed, and covers were laid for twenty at a fine lunch served by the hostess.

Manager Evans and the office force at Saginaw are well pleased with the manner in which J. J. Booth is handling their rental bills. The bills for the month of March were received promptly on the first and were in the hands of the subscribers at noon on the second. Out of 4,200 accounts there were only twenty-six differences.



OPERATING FORCE, LANSING, MICH.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

**National Pole
Company**

Escanaba, Michigan

When you want a Lock
you want the best.

**EAGLE
LOCK
CO.**

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
NEW YORK
CHICAGO
PHILADELPHIA

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



**"Thomas Quality"
Porcelain Insulators**

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by
Western Electric Company

Offices in all principal cities



If you want the
best furnace on
the market for
YOUR work,
use the "AL-
WAYS RELI-
ABLE" TELE-
PHONE B
KEROSENE
FURNACE.
Most economi-
cal, safest and
most durable
furnace made.
Fitted with
PATENTED
"Never Leak"
Pump and
FUSED steel
tank.

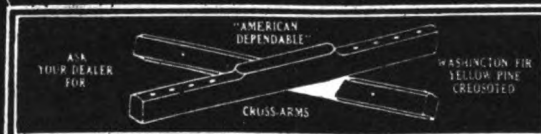
If your jobber does not stock our
goods, write us.

Catalogue sent free on request.

OTTO BERNZ, NEWARK, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



No. 2521	Each
Doz. lots	20c
100 "	12 1/2
500 "	11
	10

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY

Incorporated 1911

**ALBERT G.
SEEBOTH
COMPANY**
MILWAUKEE, WIS.

Manufacturers of
**Cotton Batts, Cotton
and Woolen Waste**

Phone Hanover 532

Place your orders with us,
we save you money.

"Beldenite" Rubber Insulated
Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Taps and Terminals.

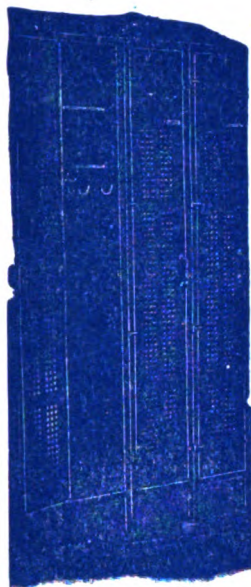
CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue,
CHICAGO

ADVERTISING

In the
**Bell Telephone
News**

**BRINGS
RESULTS**



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

ANCHORS



that hold more, cost less, don't creep, easier to install. That's the story of the **Bierce Anchor**.

PROOF

All the big, live companies are using them, and lots of them. If you are not, you ought to get in on a good thing.

Write us for testimonials.

Pat. Aug. 19, '13.

THE SPECIALTY DEVICE CO.

112-14 W. 3rd St., Cincinnati, O.

The Pittsburgh Shovel Company PITTSBURGH, PA.

Manufacturers of

SHOVELS SPADES SCOOPS

All Styles for Every Class of Work. Our High Grades Fully Warranted.

**Telegraph Shovels and Spoons
a Distinctive Specialty**

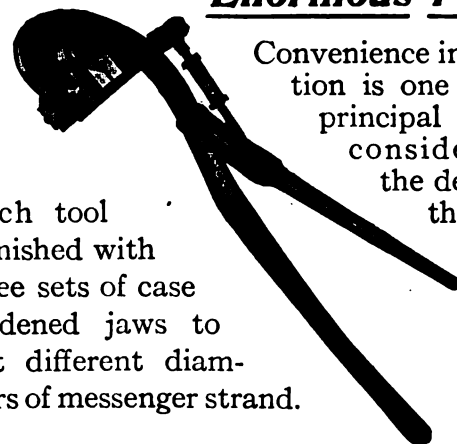
WRITE FOR PRICES

Suite 1832 Oliver Building, PITTSBURGH

DIAMOND CRIMPER

For Securely crimping Aerial Rings to Suspension Strands

Enormous Power



Convenience in operation is one of the principal points considered in the design of this tool.

Each tool furnished with three sets of case hardened jaws to suit different diameters of messenger strand.

DIAMOND EXPANSION BOLT CO.

Manufacturers of Diamond Specialties

90 West St., Cor. Cedar

NEW YORK

America's Telephones Lead the World Service Best—Cost Lowest

from *London "Daily Mail"*

Why is it that Government ownership and management of the telephones is practically always a failure?

Why is it that throughout the length and breadth of Great Britain and the Continent hardly a single efficient long-distance service is to be found? Why is it that in New York one can get a

from *"Electrical Industries"*
(London)

THERE is a certain amount of satisfaction in the fact that Mr. Winston Churchill got so angry over the freaks of the telephone the other day that he flung his receiver on the floor. As a member of the Government which purchased the telephone system, he deserves all the torture that Post Office working can inflict. But his rage, and the delicate

From *"Le Petit Phare de Nantes," Paris*

"But today I found I had to talk with Saint-Malo, and, wishing to be put through quickly, I had my name inscribed on the waiting list first thing in the morning; the operator told me—though very amiably, I must confess—that I would have to wait thirteen hours and ten minutes (you are reading it right) in order to be put through."

Herr Wendel, in *The German Diet*.

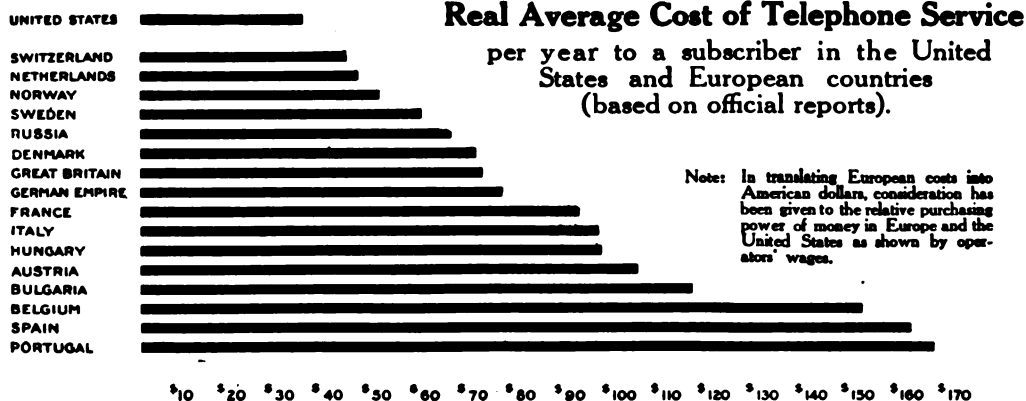
"I refer here to Freiberg. There the entire telephone service is interrupted at 9 o'clock p.m. Five minutes after 9 o'clock it is impossible to obtain a telephone connection."

Herr Haberland, Deputy, in the Reichstag

"The average time required to get a connection with Berlin is now 1½ hours. Our business life and trade suffer considerably on account of this lack of telephone facilities, which exists not only between Düsseldorf and Berlin and between Berlin and the West, but also between other towns, such as Strassburg, Antwerp, etc."

Dr. R. Luther, in the *Dresdner Anzeiger*

"In the year 1913, 36 years after the discovery of the electro-magnetic telephone, in the age of the beginning of wireless telegraphy, one of the largest cities of Germany, Dresden, with half a million inhabitants, is without adequate telephone facilities."



These are the reasons why there are twelve times as many telephones for each hundred persons in the United States as in Europe.



**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

June, 1914

No 11

Bell Telephones

AND CONNECTIONS

In the Territory of the

Central Group of Companies

MAY 1, 1914

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	521,118	255,083	776,201
INDIANA	89,510	184,362	273,872
OHIO	177,447	196,285	373,732
MICHIGAN	208,804	60,444	265,248
WISCONSIN	<u>143,130</u>	<u>116,727</u>	<u>259,857</u>
	1,136,009	812,901	1,948,910

BELL · TELEPHONE · NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., JUNE, 1914

Number 11

Continental and Commercial National Bank Building a Telephone City in Itself

Largest Office Building in the West Equipped to Give Service to 10,000 Stations.

Telephone achievements grow in magnitude and wonder daily. Transforming great skyscrapers into telephone cities is a modern feat to which the skill of telephone engineers is often directed. As builders vie with each other to create great structures, each bigger than the one before, telephone men are called to face new problems. It was the problem of equipping one of the largest modern structures in the world with a telephone system adequate to serve ultimately 10,000 telephones which confronted the Chicago Telephone Company a little over two years ago. The feat has been accomplished with the characteristic skill and genius which stand behind the Bell telephone, and it represents one of the big telephone achievements of the time.

The Continental and Commercial Bank Building of Chicago is the largest building in the United States, outside of New York City. It covers a whole city block in the heart of Chicago's business and financial district. Its twenty-one stories tower to a height of 260 feet. The floor area of the building is twenty-six acres. The building was ready for occupancy May 1, 1914.

In the basement of this great structure is the largest safety deposit vault in Chicago. The vault weighs six hundred tons and has two doors, each weighing twenty-two and one-half tons. The exterior of the building is granite and terra cotta. The interior is of Mexican mahogany and white marble. Beneath the big plate glass skylight over the light court in the center of the build-

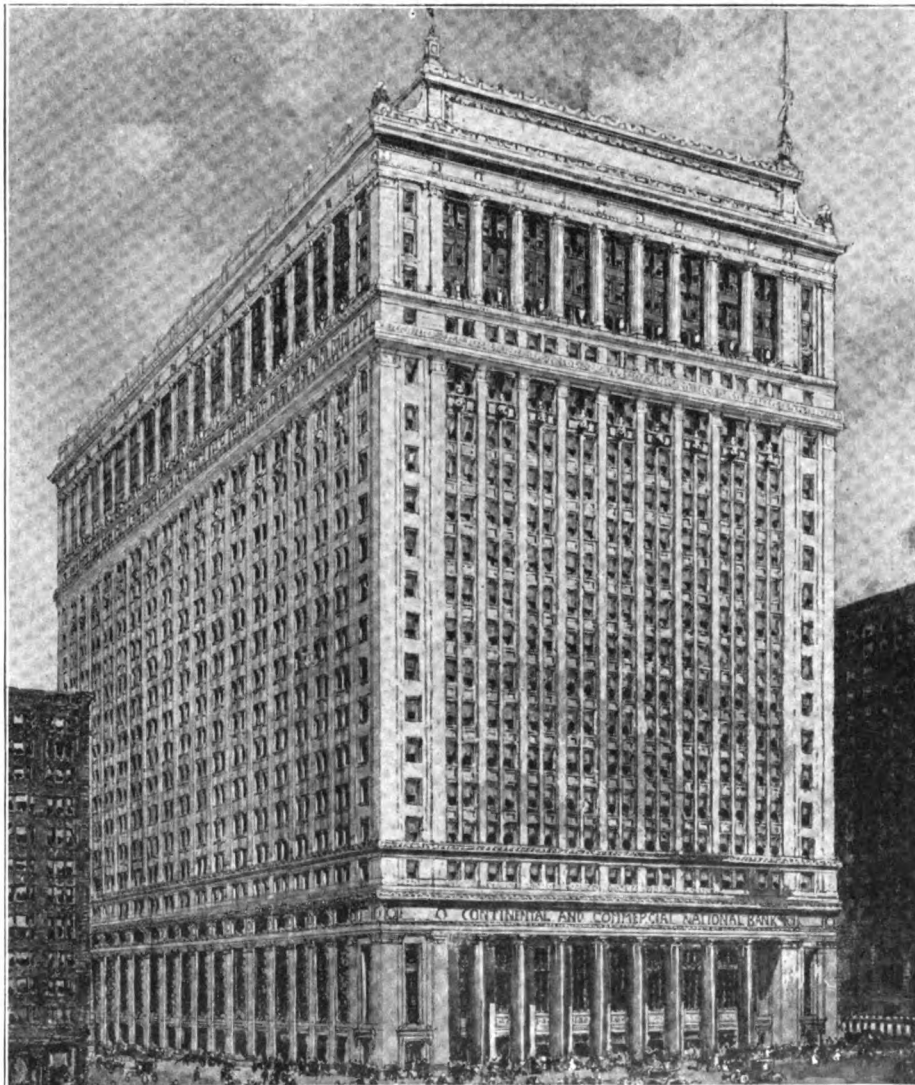
ing is a large traveling crane or platform to be used in cleaning the skylight. This is the only building known to be so equipped.

In this palace of finance and commerce has been built a modern telephone city. It has 1,000 more miles of telephone wire than Colombia, with a population of 4,500,000 and a land area of 438,000 square miles. At the present time there are as many telephones in use in the Continental and Commercial Bank Building as there are in Portugal, a nation of 6,000,000 people.

outside of two or three cities whose combined population is about 500,000.

On February 20, 1912, the Chicago Telephone Company, in conjunction with D. H. Burnham and Company, architects, now known as Graham, Burnham and Company, laid the first plans for the elaborate and complicated conduit system. The building was started four months later. Completed plans for wiring the building were approved July, 1913. The work of installing the wire system was started early in November last year. Eight men have been constantly at work but the entire job will not be completed until the middle of June.

The system of wiring in the Continental and Commercial Bank Building is known as direct-feeder, bridged-feeder and house-cable system. By direct-feeder is meant those trunk lines which do not appear on the 10,000-line distributing frame in the basement, but which run direct from the Wabash exchange to the floor terminals in the building. Bridged-feeder lines are trunks which appear on the main



NEW CONTINENTAL AND COMMERCIAL NATIONAL BANK BUILDING, CHICAGO.

frame and also at the floor terminals so that connection or cross-connection may be made at either the floor terminals or main frame. The third class includes two sets of cable; those which run between floor terminals and the main frame, which may be cross-connected for intercommunication; and a set of trunk lines from the Wabash office which terminate in the main frame, to which lines in the house cable may be connected.

Two 600 pair underground cables enter the building through a four duct conduit, leaving capacity for two additional 600 pair cables when the need arises.

At present there is one pair of conductors for every 146 square feet of the 584,454 square feet of rentable area. In other words, there is one pair of direct feeder to 487 square feet; one pair of bridged feeder to 487 square feet; and one pair of house conductors to 365 square feet. There is a total of 1,745 miles of wire in the two 600 pair cables which enter the building and 1,024 miles of wire in the building, a total of 2,769 miles.

The first six floors and basement, which are not included in the rentable area, are to be used by the Continental and Commercial Trust and Savings Bank, the Hibernian Banking Association and the Continental and Commercial National Bank. To take care of the telephone needs of these six floors, four fifty-pair house cables run to the first floor from the main frame, one 400-pair house cable to the second floor and a 600-pair cable from the second to the sixth floor where the private branch exchange switchboard will be located. There are also terminals on each floor.

All riser cables are carried upward from the basement through four riser shafts, one in each corner of the building. Above the sixth floor in each shaft the riser cables taper in size, the smallest at the top being twenty-five pairs. From the splices in the shafts on each floor, twenty-five and fifty pair cables are run laterally in conduits to the terminal boxes. There are fourteen terminal boxes on each floor above the third. These terminals are built to match the woodwork of the building and are set flush with the corridor walls. Tubes are provided for carrying the wires between the corridor wire moulding and the room wire moulding.

Forty-eight private branch exchange switchboards are scheduled to be installed in the building. They include forty-two one-position boards, four with two positions, one four-position board and one with six positions, a total of sixty operator's positions. Twenty-four of these boards had been installed and were working on May 1st. The service furnished to these boards involves the use of 228 trunks, 950 stations and thirty-eight connecting trunks.

The largest private branch board in the building is that of the American Steel and Wire Company. It will handle the service on the eleventh, thirteenth, fourteenth, sixteenth and seventeenth

floors. It is connected with the Wabash office by 200 trunk lines and from it radiate ten 100 pair house cables.

In every respect the telephone system of the Continental and Commercial Bank Building is modern, with ample flexibility and capacity for future growth.

Britain Roars over Telephone

Under the above heading the *Chicago Tribune* of May 24th prints from its London correspondent the following article:

After thirty-one years of backing and filling the postoffice secured in 1911 a com-

tion of British equipment. There are still many varieties of switchboards. There are five varieties of telephone signs in London streets and overhead there is still an ugly and dangerous tangle of wires, cables and crossarms, such as existed in New York City more than eighteen years ago.

The marvel of underground telephony, which enables Boston to talk to Washington through a 500-mile conduit, is unknown as yet to the telephone users of Great Britain. If one may judge by the incessant torrent of complaints, the postoffice telephone has by no means reached the point of giving satisfaction to the public.

In the matter of rates there has been no reduction, and none is even promised. The postmaster general declared in a recent speech that "It is impossible to give individual subscribers the hope of much reduction." The net profit last year was only \$1,500,000, which is less than the postoffice received as "royalty" from the National Telephone Company in 1909, 1910 or 1911.

Service is Not Cheap.

British telephone service is not cheap and never has been. The postoffice never has had a complete service to sell. Its service has been fractional; and on its long-distance lines the service has been deferred rather than instantaneous. Even with its present deficient facilities, the revenue per unit is greater here than it is in the United States, the difference last year amounting to nine shillings, one pence per telephone.

As to the telephone exchanges, twelve of the most efficient in London and the vicinity have been visited. The hygienic conditions are all that could be desired. The rest rooms for operators are superior in comfort to those of other countries. The lunchrooms supply unusually good food at unusually low prices. The equipment in these twelve exchanges is modern and standard.

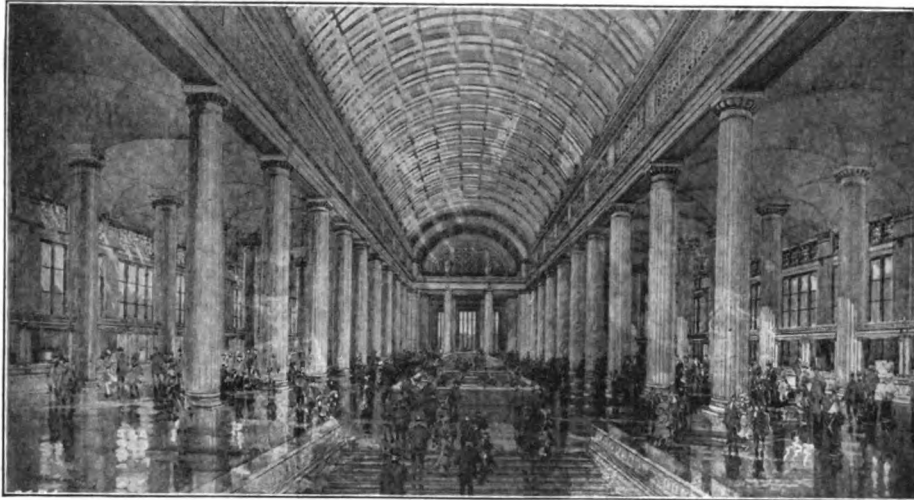
In general there appears to be congestion in the heart of the city, and a large number of unused lines—more than 37,000—mainly in the suburbs. Most of the seventy-two exchanges in London are very small affairs.

Changes in Legal Department

H. W. Paddock, formerly tax attorney for the central group, has become tax attorney for the Central Union Telephone Company alone, and the office of tax attorney for the four companies has been abolished. The duties are transferred to the general managers.

Expensive Micacs

A transfer for some exchange supplies to one of the connecting companies in the Saginaw district bore the code number 122-31. The man who received the goods immediately called his superior officer, telling him that the Michigan State Telephone Company had charged them \$122.31 for twenty-five protector micacs.



BANKING FLOOR, NEW CONTINENTAL AND COMMERCIAL BANK BUILDING, CHICAGO.

plete monopoly of telephony in the United Kingdom. For the last two and a half years it has had no competitors.

It has had an opportunity to reduce rates, to "put a telephone in every home," and to develop in every way the telephonic facilities of the nation. For the last 900 days, nearly, we have had the civil service regime, with results that appear to be eminently satisfactory to the postmaster general, but which are not so satisfactory to the public.

According to records which have been obtained from the postoffice itself, it appears that there are now not more than 243,000 telephones in London, and not more than 480,000 in the provinces. There has been an increase of only 40,000, which is less than 6 per cent.

One Telephone to 63 Persons

In the whole United Kingdom there is only one telephone to every sixty-three people, as against one to every ten in the United States. The Bell companies of America, in spite of their previous amazing growth, added a 6 per cent. increase last year, a total of 460,000 new stations. Evidently the British telephone service is not atoning for the losses of the past, but is still in the same relative position in the rear.

The figures as to the improvement of the telephone plant are equally unsatisfactory. The postmaster general announced recently that he proposed to spend \$12,000,000 this year in London and the provinces. This total is not more than one-fifth of the amount that is being spent on improvements by the American Bell companies alone.

The Bell companies spent more on improvements alone in 1912 and 1913 than the value of the entire British telephone plant, lock, stock, and barrel.

Lack of Underground System

As yet there has been no standardiza-

Cut'over and Reception at Sault Ste. Marie, Mich.

Another big cut'over in Michigan, quickly following that at Monroe, took place Easter Sunday, April 12th, at Sault Ste. Marie, in the Upper Peninsula. The mechanical features of this cut'over resembled those at Monroe, described last month in BELL TELEPHONE NEWS, so closely as to make it unnecessary to write of them in detail.

Two public receptions were held, on Friday and Saturday of the same week, which were attended largely, and which were conspicuously successful from a publicity point of view. Commercial Superintendent G. M. Welch took with him E. M. Steiner, Floyd Lockwood and R. T. White of his department, to act as guides around the new premises and explain the workings of the new common-battery system to the subscribers. Mr. Welch himself and E. E. Michael, district manager, assisted at this work, the former laying particular emphasis, in his descriptions, on the necessity of attracting the operators' attention by a slow and regular depression of the switch-hook instead of violently wig-wagging it.

Two portable telephones were wired into the board at the first position and served to illustrate the method of putting in and answering a call, in a manner that deeply interested the visitors.

Another interesting exhibit consisted of a pair of acoustic telephones—the first used commercially at the "Soo"—through which people talked in 1883.

During the two days the public visited the telephone office the attendance consisted of 1,013 men and 1,266 women—nearly 2,300 people. (The population of Sault Ste. Marie is about 13,000.) As vis-

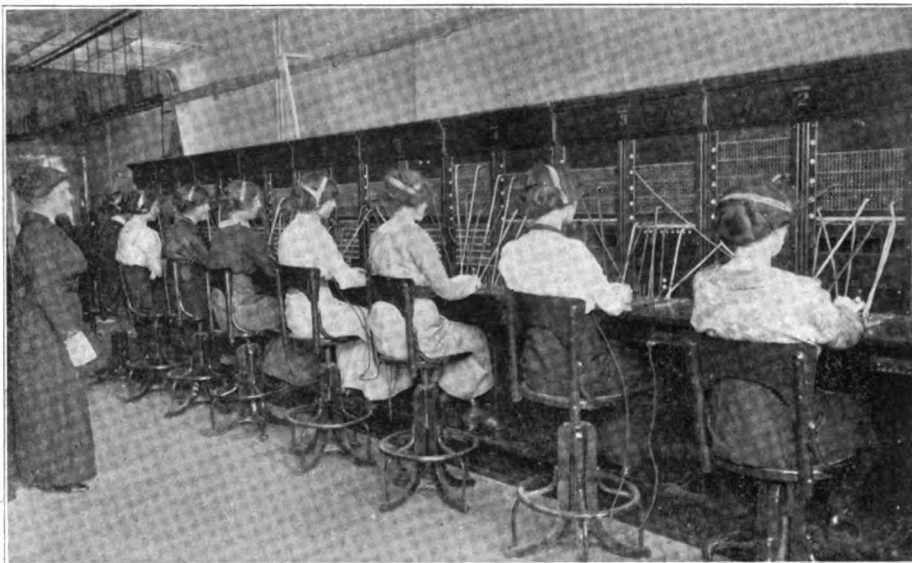
itors came into the exchange, carnations were handed to the women, and celluloid blue bells were pinned on the men's coats—1,000 bells and 1,300 flowers being thus distributed.

ing young ladies. But about all the *News* tells concerning them is the number of years they have been employed on that job."

The *Houghton Gazette* remarked about

The interesting features of these telephones are that they are entirely mechanical in their operation, being used without the aid of the electrical current, and that they were used through an "exchange."

The instrument is similar to the West-



NEW NO. 10 COMMON BATTERY BOARD AT SAULT STE. MARIE, MICH.

Lottie Gerrell, Chief Operator.

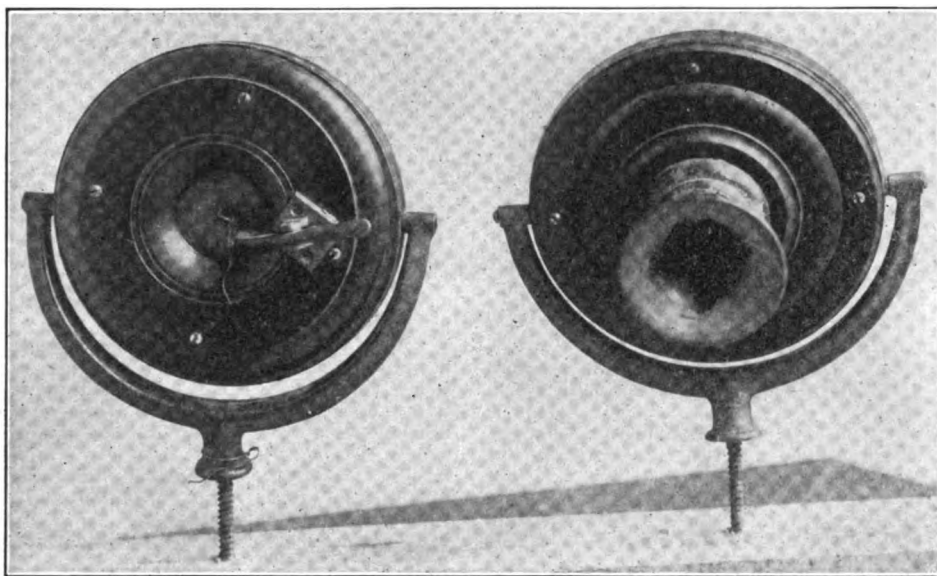
ern Electric switchboard transmitter, being almost an exact copy of the design of the No. 232 transmitter. A wire was attached to the center of the wooden diaphragm and the sound waves were transmitted mechanically over the wire to the diaphragm of a like instrument.

There was an exchange of forty telephones of this type at Sault Ste. Marie in 1883. The exchange was located in a small room, about fifteen feet square, built on the roof of the most centrally located building in the city. The wires were strung across lots direct to the subscribers. To call "central" a small lever was depressed, and a spring caused the lever to strike against the diaphragm. (This can be easily seen in the photograph.) This made a sound in the instrument at the central office. "Central" then received the message and repeated it to the second party.

Judge Chapman states that a satisfactory conversation could be held at a distance of three or four blocks from the central office.

The equipment is of course more like the old-fashioned "lovers' telegraph," or like the toy made from a couple of tin cans and a piece of string, than anything else, and it is somewhat odd to think of a telephone system of a purely mechanical nature after the invention of the electric telephone. No doubt it was better than nothing at all.

Mr. Simmons of the Rogers Park exchange says he did not "shoot the trouble."



BACK AND FRONT VIEW OF ANCIENT ACOUSTIC TELEPHONE EXHIBITED AT SAULT STE. MARIE, MICH.

itors came into the exchange, carnations were handed to the women, and celluloid blue bells were pinned on the men's coats—1,000 bells and 1,300 flowers being thus distributed.

The local press at Sault Ste. Marie, consisting of two papers, the *News*, and the *Times*, helped generously with their powers of publicity, each giving accounts of the cut'over and reporting the public reception afterwards with many pleasant words.

Manager Michael says that the public is unquestionably much pleased with the

Novel Relics Exhibited

Visitors at the reception at Sault Ste. Marie, Mich., given after the opening of the new exchange, had the privilege of seeing not only the latest type of telephone apparatus, but also the first two telephones which were ever used in the Soo. Judge C. H. Chapman loaned for display during the reception these instruments, which belonged to him.

Dog-on Trolley Causes Trouble

A subscriber on Sheridan road, Chicago, has found the telephone drop wires in an advantageous position to be used as an overhead trolley for his dog. A ring slipped over the twisted-pair drop had attached to it a long rope and at the end of the rope a large dog. This unique trolley allowed the canine to roam over a large territory, but as might have been expected, a case of "noise on the line" soon developed.

Mr. Simmons of the Rogers Park exchange says he did not "shoot the trouble."

Temperance

By Dr. Alvah H. Doty, Medical Director Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company

There is probably no subject concerning public or individual health which is more frequently discussed than that relating to temperance as applied to the use of alcohol. This term is also frequently used as a synonym for total abstinence.

Temperance, correctly interpreted, means that so far as our habits are concerned we are within the safety zone. This is really all that nature expects from us in the care of our health, therefore it is not only inappropriate, but misleading, to restrict this subject to the consideration of alcoholic drinks, for temperance equally applies to anything we may eat or drink as well as our methods of living.

In previous articles we have learned of the very great resisting power of the human body and how with but little trouble or effort it deals with the regular or ordinary work thrown upon it in connection with a normal and reasonable mode of life, but if we are continuously intemperate in our eating and drinking or in our habits, this equilibrium is sooner or later destroyed and we are quite sure to suffer for it.

A large part of the public have no thought of and give no consideration to the plan upon which we are organized, and some are unmindful of the unpleasant or serious results which may follow a disregard of personal hygiene.

On the other hand some are made constantly unhappy through the fear that what they eat or drink or the air they breathe may not be free from contamination. This is a particularly unfortunate frame of mind, for practically we cannot have food, water or air without some impurities. Still if by care these are reduced to the minimum, nature is, as a rule, able to neutralize any ill effect in this direction and we need not worry regarding the danger from this source.

It is not intended that we shall live unhappily by being deprived of various articles of food and drink which we like and which in moderation are not harmful, or in the enjoyment of reasonable pleasures, but it is intemperance in this direction which is to be guarded against; besides, it must be understood that while we may observe temperance or prohibition in one direction it does not justify intemperance in others. The public do not appreciate this, for some of the most ardent so-called temperance advocates who look with horror upon the excessive use of alcohol are gluttons at the table and undoubtedly die from causes superinduced

by overeating or are seriously affected by over-indulgence in other directions.

The term Temperance is in a way a comparative one, for what may constitute an excess in eating or drinking with some persons is temperate in others; besides children or those who are ill or otherwise in abnormal conditions cannot with impunity do what may be regarded as proper or reasonable in healthy subjects. Nevertheless, temperance in any direction, so far as it affects the masses, may be fairly well determined.

This article is not intended to discuss

because the danger of overindulgence is not considered.

There is good reason to believe that continued overeating is indirectly responsible for a greater loss of life than that which follows the excessive use of liquor. As a rule, we eat much more than we need. This is intemperance and leads to many unpleasant conditions. We take a large amount of food which has but little nutritive value and is often very difficult to digest. This constantly overtaxes the digestive organs and sooner or later renders them unable properly to perform their functions and may afterwards lead to organic disease. One of the unpleasant effects of liquor is the abnormal appetite that it is apt to create, which calls for an increased and unnecessary amount of food.

There is probably no condition which is more responsible for the unpleasant and serious conditions which occur in connection with the digestive tract than the frequent indulgence in formal or public dinners, for at these functions many courses are served consisting of rich and indigestible material, which is not only uncalled for but is very difficult to digest. Reform in the menu of these entertainments by the substitution of plain and simple dishes would be of valuable aid in bringing about temperance in this direction.

Among those who have carefully investigated the subject it is the consensus of opinion that tobacco does but little harm when moderately used in healthy adults, but in excess it is injurious in many ways, having a selective action on the nervous system and sooner or later affecting the heart; besides various forms of digestive trouble are caused by it; the latter often occur even when tobacco is used in small quantities.

Both coffee and tea are delicious beverages and are used throughout the world, and while there is no reason to believe that when taken by adults in a moderate amount that any well defined unpleasant results follow, when intemperately used the nervous system as in the case of tobacco is often seriously involved. In late years tea drinking has been introduced into this country and like all fads has been overdone.

The most serious factor in connection with the tea and coffee habit is the increasing use of these beverages among children who drink them daily and depend upon them for their stimulating effect. Children are passing through a



OPERATORS' REST ROOM IN NEW EXCHANGE AT SAULT STE. MARIE, MICH.

As described in article on Page 3.

alcoholic drinks or the unpleasant or dangerous results which may follow their excessive use. It is true that the intemperate use of liquor is responsible for great suffering and indirectly loss of life; besides, it is associated with so many unpleasant public demonstrations that it has become notoriously familiar and largely for this reason has overshadowed the danger of intemperance in other directions.

Without referring to the various arguments presented in connection with this subject or the good that prohibition has done in this direction, the fact remains that the use of alcoholic drinks will probably not be discontinued, although it is the hope and belief of some that this may occur. It is generally accepted, however, that it is their abuse rather than their use, which is injurious not only to the individual but in a way to the public also, therefore it is logical and fair to assume that much may be gained so far as the betterment of this condition is concerned if temperance as well as prohibition is preached, for drinking is very much a matter of habit and is increased largely

formative stage during which time the various tissues of the body are developing and reaching their growth. Coffee, tea and tobacco notoriously affect the nervous system, particularly of young children, and there is no doubt that in persons of this age they are not only responsible for temporary ailments but lay the foundation for serious permanent affections. Parents are largely responsible for this habit among children, for it is usually contracted at home.

Even a superficial consideration of the subject of Temperance indicates that it is very general in its application, for it includes the various excesses which may be associated with our mode of life as well as the improper use of food and drink.

There are conditions which may practically be termed enforced intemperance for unfortunately there are many persons who for various reasons are obliged to work intemperately as a means of sustenance. This applies more particularly to brain workers who often do not obtain a sufficient amount of rest or sleep and but little or no exercise; however, even under these conditions which really constitute a serious form of intemperance, there are ways by which unpleasant results may be prevented, for more care may be taken in the selection of simple and inexpensive but nourishing food, besides there is no form of employment which does not permit at some time of the day or night an opportunity to secure exercise in the open air. This relieves various organs which may be congested as the result of sedentary habits and is of inestimable value in protecting against the dangers of this mode of life.

The intent of this article is to impress upon the readers the need and importance of a broader interpretation of the word Temperance and the necessity of recognizing its importance, for the methods by which it may be successfully carried out in the preservation of our health are very simple and mean only that we shall observe the rules of personal hygiene, for if these are maintained we need not worry about possible dangers which may present themselves in connection with a mode of living which is temperate and orderly.

Big Estimates for the East

What the New York Telephone Company expects to do in the way of development in the next few years was told in a recent interview with Vice-president Frank H. Bethell in the *New York Evening Post*. Mr. Bethell said:

"In New York state alone, in 1914, we expect to spend \$23,000,000 in extending and improving our plant and equipment. According to our plans, as already mapped out, from 1915 to 1930 we anticipate spending a yearly average of \$25,000,000 for the same purpose. From 1931 to 1940 our budget will average about \$28,000,000, and from 1941 to 1960 it will be about \$25,000,000 again. We are figuring on an annual development of 15 per cent., or reducing the figures to a concrete simile, upon fifteen telephones in every 100 of the population in this state.

"According to our estimates, the population of New York state in 1960 will be 27,000,000, and this population will require 5,000,000 telephones. There are now 500,000 instruments in New York City, and 900,000 in the whole state. In order to provide for the development of our service and to be able to take care of the growing demands upon us, up to 5,000,000

telephones, we shall have to spend in the forty-five years between 1915 and 1960 a total of \$1,155,000,000—this being additional to the budgets for upkeep of plants and equipment already in use and for operating expenses.

"Figures I have given apply to New York state alone. They would be enor-



LOTTIE GERREL.
Chief Operator, Sault Ste. Marie, Mich.

mously augmented if the rest of the country, or even if the states comprised in what we call our Eastern Group, were thrown in. In Pennsylvania alone, in the years intervening before 1950, we look to expend \$166,000,000 additional to main-



MATILDA BERNIER.
Evening Chief Operator, Sault Ste. Marie.

tenance expenses, in order to keep abreast of growing demands upon us.

"We estimate the population of Pennsylvania in 1950 at 13,000,000, and this population will require 2,250,000 telephones. As a matter of fact, the number of telephones in use in the Eastern Group states will pass the 2,000,000 mark early next month."

Visiting Days in Cleveland

Although the telephone has been in use for over thirty-five years, there is still a great element of mystery in regard to it on the part of the general public. The prevailing feeling seems to be that a telephone exchange is "sacred ground" and not to be trespassed upon by the uninitiated. To overcome this false notion on the part of the public, the Cleveland Telephone Company during the past year has been conducting an active campaign, planned to give its patrons a better understanding of the workings of a telephone exchange.

An invitation to visit the operating room has appeared in the Cleveland Telephone Directory for a period of several years, but the number of subscribers who took advantage of this invitation was small. It was decided that a personal invitation would be more effective. Advantage was taken of the fact that at the beginning of each quarter during the months of January, April, July and October several thousand patrons come to Main office to pay their quarterly telephone rental.

Commencing with the April quarter, 1913, the guides who were selected from the commercial and operating forces were stationed in the lobby, and after subscribers had transacted their business they were invited to inspect the building. Starting at the top floor they were conducted floor by floor through the entire building, the guides explaining in an interesting way the part each department plays in the conduct of the business.

From April, 1913, to April, 1914, over 6,000 people were conducted through the Cleveland Telephone building in this manner. At each quarterly period a large sign bearing an invitation to the public to visit the operating room is conspicuously placed in the lobby. In addition to conducting the general public through the building, such organizations as the Cleveland Builders' Exchange, the Cleveland Credit Men's Association and the Lakewood Chamber of Commerce have been entertained at luncheon and initiated into the mysteries of "Central."

Inspection tours have also been made by the Geographical Society of Cleveland and by students of the Western Reserve University, Case School of Applied Science, Spencerian Business College, the Young Women's Christian Association, and a number of other educational institutions. The great benefit both to the company and the public from these tours of inspection is very plainly indicated by the interest shown and the many questions asked by those who are being introduced to the intricacies of a telephone exchange. Many mistaken notions are explained away and the patron leaves the building with a better understanding of the telephone company's methods and organization. He is thus enabled to cooperate more intelligently with the operator on future calls.

Mr. Wray an "Immortal"

J. G. Wray, chief engineer of the Central Group of Bell Telephone Companies, is now an "immortal." His name is included among those of twenty-nine graduates who have been elected to the hall of fame of the University of Wisconsin at Madison. Mr. Wray is a graduate of the class of 1893.

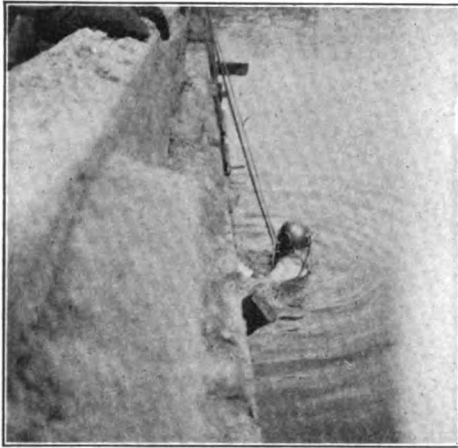
A River Rescue in Reel Life

By William Scherschel, South Division Storekeeper, Chicago, Ill.

Readers of the BELL TELEPHONE NEWS will recall in the March number an interesting description of a diver's inspection of telephone pipes on the bottom of the South Branch of the Chicago River. Inspection is not the only service in which divers may be employed to advantage in telephone work.

As a very fitting sequel to this submarine inspection, a diver assisted in the raising of a reel of cable from the bottom of the Chicago River and thus saved material of some \$500 in value.

The reel of cable had been delivered at the river bank to be pulled through pipes crossing the South Branch. It was placed



DIVER ENTERING RIVER TO FIX CHAINS TO CABLE REEL.

some thirty or forty feet from the edge of the dock and blocked with timbers to await the construction force which was to pull it through the pipe to the other side. Meanwhile, however, some of the jesters in the neighborhood with a perverted sense of humor but with much energy to spare, pried the blocks away from the reel and rolled it into the river, presumably to hear the splash.

It then became the writer's duty to rescue the three-ton reel of cable from its damp resting place. The services of Ivar Johnson were secured as diver. He was sent down for a preliminary inspection on March 12th, and upon his return to the surface he informed me that the reel was lying on its edge, nearly half buried in the soft mud. After some difficulty, the reel bar was placed through the hole of the reel on his second descent, and on his third he took with him a heavy chain. The work of fastening the chain over the ends of the bar involved not a little difficulty, as it was necessary to dig out the whole underside of the reel from the mud. There was no chance for the diver to use his eyes on account of the murkiness of the water.

Luckily a spur track ran along the river bank at this point, and through the courtesy of Marsh Bingham and Company, on whose lumber yard the operations were being carried forward, a large hoisting derrick was backed to the river bank. The diver, making another descent, then fastened the steel hoisting cable to the chain on the reel. The ticklish portion of the job was now reached, as it was not at all certain that the derrick would be able to lift the reel from its bed in the mud.

However, after a few slow pulls, we began to feel that our fears were groundless, for it was noticed that the cable was raised slightly. We began to breathe easy

when, after two minutes steady pulling, the three-ton reel of cable emerged from the water. There it dangled over the river, spouting streams of water from every lag like some gigantic submarine monster fished from the depths of the sea. Then we had an opportunity to see the excellent way in which the diver had performed his part of the work in fastening the chain to the reel bar, for the great spool dangled from the hoisting cable perfectly on its center. After a few photographs were taken, the derrick gracefully swung the reel over the dock and set it again on dry land.

Storm Troubles in Chicago Exchanges

By G. K. Mills, Wire Chief, Wentworth Exchange.

Sleet storms and floods provide pages of copy and pages of illustrations, all of which are thrilling, but the excitement must reach the Chicago repair force largely by induction, as it were. The short block wiring which prevails in the city does not suffer greatly from an ordinary coating of sleet, and all of our aerial equipment is protected from high wind to a certain degree by the density of building.

In general, the storms which give the most trouble to the city exchange system of Chicago are those of the electrical variety. This is due to the fact that the slightest disintegration of the carbon blocks at the subscribers' stations, caused by the lightning discharges, is sufficient to prevent the bells from ringing. As a rule the discharge across the air gap between the carbons is not great enough to cause a path to ground for the line battery, but reduces the air gap to a point where the higher voltage ringing current will arc across to ground, thus shunting out the bells. Since we use an automatic ringing trunk system, the trouble on each line which is affected is, as a rule, reported when the first incoming call is made. The resultant increase of current through the generator relay, due to the direct path to ground through the carbons, operates it and cuts off the generator current, which results in reports of "don't answer," "bell don't ring," etc. The result is that the trouble is promptly reported and cleared.

The exchanges in the commercial area, where most of the distribution is underground, are but slightly affected by these storms, most of the trouble being found in those residential exchanges where the cables are long and where there is much aerial distribution. Sometimes as many as twenty per cent. of the total stations will be without incoming service following a heavy electrical storm. A single stroke of lightning will frequently operate every protector within a distance of two or three blocks. Nearly every storm results in a half dozen or more lightning discharges in any fair-sized exchange territory, with results in proportion to the number of discharges and the density of stations.

In some of our offices the storms seem to have comparatively little effect, even where there is considerable aerial distribution. The greatest trouble seems to come in the exchanges which cover an extended territory, even though the greater portion of the distribution is by cable. This is largely due to two factors. It is a well known fact that lightning very seldom actually strikes a line, consequently the results must mainly be due to inductive action, or to a disturbance of the potential of the earth. A portion of the trouble is probably due to induc-

tion between cable pairs; that is, the charge set up on a line which is near the point where the lightning strikes will induce a similar charge on the other lines in the same cable. It is probable also that considerable trouble is due to the fact that a lightning discharge momentarily disturbs the potential of the earth. It is obvious that both these causes would produce greater effects on long lines than on short ones, whether the lines are aerial or in cable.

Conditions in different exchanges determine the best methods of handling the trouble. It is especially necessary to have ample testboard facilities in handling storm trouble of any kind. Lines should be provided liberally and should be so arranged that all testmen may have ready access to any line. This is of more importance than may at first seem evident, as in the confusion attendant upon having a large number of extra men on the force, they get connected with the wrong group of lines and some loss of time results. One of the greatest difficulties in handling heavy storm trouble is in providing sufficient relief during the noon hour. It is especially important at this time that one testman be able to handle the calls of another testman who is out. There is never time to rearrange jumper wires to the testboard after a storm, in order to arrange the lines to meet the needs of the occasion. The ideal equipment, from the wire chief's point of view, would be a full multiple of all lines on the testboard over each position on lamps and keys, giving the testboard all the flexibility of a multiple switchboard.

Electrical storms in Wentworth exchange have resulted in 5,000 reports of



RESCUING REEL OF CABLE FROM CHICAGO RIVER.

trouble from subscribers within three days, and these reports probably did not represent half of the stations which were in trouble. Such an amount of trouble coming to a force which is adjusted to handle some 300 or 400 reports daily, results in the greatest confusion unless ample force and testing facilities are available on short notice. Above all this work must be immediately and carefully supervised. The installation department is called on for all available installers. The exchange district is divided into three or four divisions and one testman is in charge of the men clearing trouble in each division. Other testmen are assigned to do the testing of all reports which come in. The men who handle the repairmen and installers test each case after the outside men report it clear, in order to make sure that all trouble is

properly cared for. The outside men work as long as daylight will allow until all of the trouble is cleared. The testmen continue during the evening, testing new reports of trouble and testing reports on circuits which have been cleared. Three testmen and twelve repairmen ordinarily handle the trouble in this exchange, but after a severe storm it requires eight testmen and seventy or eighty repairmen and installers.

It is far more productive of satisfactory results in clearing protector trouble to change the carbon blocks and the micas wherever they show any burn from lighting. The micas especially are prone to repeated trouble unless changed. The least accumulation of carbon on a protector mica or burning of the edges, considerably reduces the air gap and allows the ringing current to arc across to ground. Carbons cleaned by the repair men bring about the same results in a large number of cases. New carbons collect more or less dust in being carried around and rubbing together in a grip or pocket, and this dust must of course be cleaned out before they are put in a protector.

Most of the carbons are not grounded heavily enough to cause any trouble except that of prematurely stopping the ringing current. This condition applies to about ninety per cent. of the reports received after a storm. Aside from a consideration of the service not rendered, it is evident that much revenue producing traffic is lost because of this trouble. A traffic study of lost calls from nickel and measured stations following a heavy storm would probably be interesting if not appalling. If it were possible that all of the circuits which had trouble could be reported soon after a storm, the routing of repairmen could be accomplished much more efficiently and the trouble could be cleared more promptly.

Surprisingly few cases of protector grounds occur in the central office frames after storms, which is probably due to the choking effect of the cables. This also serves to explain why cable trouble, caused by lightning discharges, is usually found in the goose necks and other bends in the cable; in other words the rapidity with which the discharge oscillates prevents it from turning the corners and it consequently jumps to the sheath at that point. Not all of the fuses are found to be blown, either at the cable boxes or at the subscribers' station protectors. This is probably due to the fact that the discharge is of such short duration that the fuses do not have time to operate even though the current is higher than the rated capacity of the fuse. Occasionally the trouble has been found in the underground cable, which would seem to prove this supposition. As an example of this a recent stroke of lightning grounded about seventy pairs of conductors in a 600-pair underground

cable. In this case we were unable to locate the point where the lightning entered the cable, but in any event it was necessary for it to pass through the fused junction box to reach the point where the trouble was found.

Numerous attempts have been made to design a substitute for the carbon protector now in use, but apparently nothing has been accomplished of any great importance. As an illustration, in 1903, an experiment was made in Wentworth district and office with aluminum blocks, using paper .003 of an inch thick as a separator. The results of this experiment are still fresh in the memory of those of us who were in Wentworth that year. After every lightning storm we filled the

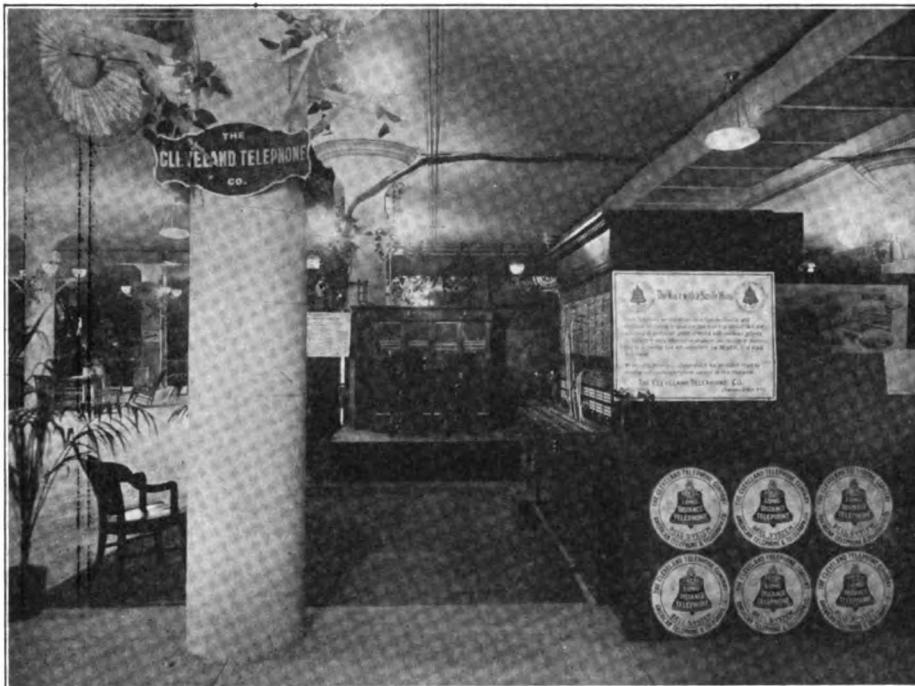


EXHIBIT OF THE CLEVELAND TELEPHONE COMPANY AT THE ELECTRICAL EXPOSITION.

pockets of all available men with aluminum blocks, giving them instructions to "go to it." By working twenty-four hour shifts, that is the outside men working from the time they could gain admission to the subscribers' premises in the morning until this was no longer possible at night, by the testmen working as long as they could keep awake, and by the manager working all night to clear the grounds in the main frame and to sort the trouble tickets, we were able to give some service. It was a common occurrence to have more than half our lines permanent. Let it be known, however, that we had no arcing trouble, as the slightest discharge would blister the aluminum and put a dead ground on the line. After this experiment had been tried out we were very glad to have the carbon blocks again.

Rate Increase Approved

After six months investigation the Nebraska State Railroad Commission authorized the Lincoln Telephone and Telegraph Company to increase its rates fifty per cent. on business telephones and twenty-five per cent. on residence lines. The commission found that the company was not earning enough to give proper service and at the same time furnish a fair return upon the investment.

Cleveland Electrical Exposition

The wonderful progress of the Bell telephone, its growth in Cleveland and present-day methods of operating were illustrated in the exhibit of the Cleveland Telephone Company at the Electrical Exposition, held in the Coliseum, May 20th to 30th.

The telephone exhibit included a two-position private branch exchange, with two booths operated in connection, and three sections of multiple board, the whole occupying an exposition booth, artistically lighted and decorated. Regular local and long-distance service was furnished from the booths. Company representatives were in attendance to explain the operation of the system. Visitors were given a handsome souvenir booklet containing photographs of the various Cleveland exchange buildings, typical apparatus rooms, company officials, groups of operators, etc. This booklet was prepared by the publicity department.

The Bell booth was a center of attraction all through the two weeks.

T. P. Cagwin, commercial superintendent of The Cleveland Telephone Company, was on the Exhibit Committee of the exposition and Norman Anderson, traffic superintendent, was one of the lecturers. Before an interested audience, Mr. Anderson gave an illustrated talk on the telephone, in which he showed the daily life of the operator,

both at work and "at play" in the company's many rest and recreation rooms in the various exchange buildings throughout the city.

Benefits Appreciated

Following is a letter received by the secretary of the Employees' Benefit Fund Committee from a Chicago employee who received benefits from the fund during a recent illness:

Chicago, Ill., April 27, 1914.

Mr. W. I. Mizner, Secretary.

Dear Sir: It gives me pleasure to write a few lines to you in regard to the good which I have received from the employees' benefit fund during a recent illness which confined me to my bed for about three months.

I want to thank you and the originators of this fund, as I found it very beneficial during my illness, for the prompt service which was rendered me.

This being my first experience of sickness and also of benefits, I did not know what expense was connected with it. I found the benefits received eliminated a great worry from my mind.

My employer supervised my welfare attentively during my illness.

Hoping my thanks will be accepted at this late date, as I feel I am fully recovered, I am, yours truly.

Mr. Hughitt Elected Director

Marvin Hughitt has been elected a director of the Chicago Telephone Company, to succeed the late Byron L. Smith.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY.
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

B. E. SUNNY, *President*
A. BURT, *Vice President and Treasurer*
H. F. HILL, *Vice President*
W. I. MINER, *Secretary*
L. G. RICHARDSON, *General Counsel*
B. S. GARVEY, *General Auditor*
J. G. WRAY, *Chief Engineer*
CLIFFORD ARRICK, *Manager Publicity Department*

W. RUFUS ABBOTT, *General Manager*,
Chicago, Ill.
H. O. SEYMOUR, *General Manager*,
Milwaukee, Wis.
ALLARD SMITH, *General Manager*,
Cleveland, Ohio
A. VON SCHLEGEL, *General Manager*,
Detroit, Mich.
H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING - - - CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except
employees of the above named Telephone Companies.

JUNE, 1914.

What Is a Corporation?

No less personage than the president of the United States is the author of this remark:

"I regard the corporation as indispensable to modern business enterprise. I am not jealous of its size or might, if you will but abandon at the right points the fatuous, antiquated and quite unnecessary fiction which treats it as a legal person."

The corporation is not a person. It is an organization of persons. It may be an organization of hundreds of persons. Some corporations are organizations of thousands of persons, and all of the corporations of the country, collectively, are organizations of hundreds of thousands of persons.

Who are these persons? The offhand answer might be, "They are capitalists." A few of them are capitalists, as we ordinarily understand the term, that is, men of wealth. The bulk of them are men and women of small means—men and women who by economy and sacrifice have accumulated small savings. The banks, in which the savings of thousands are deposited, are holders of the securities of corporations. The funds so invested belong to the depositors, who are thus indirectly part owners of the corporations. The report of a certain large insurance company for 1913 shows that it holds \$29,000,000 worth of the stocks and bonds of 225 different corporations. These securities belong to the 110,000 policyholders of this company and every policyholder is a part owner of every one of these 225 corporations. Thus, if we were able to get a list of all the stockholders and bondholders in all the companies, the depositors in all the banks and trust companies in the country, and the holders of all fire, life, accident, and other forms of insurance policies, we might begin to approximate the number of people who are the owners of the corporate property of the country and who are therefore vitally interested in the financial success and prosperity of the corporations. And this does not include the millions of people who are employed by corporations and derive from them their means of living.

These investments and the sources of these salaries and wages are entitled to protection. The demagogue who, pandering to popular prejudice, strikes at the life or well being of a corporation, may be aiming a blow at your next-door neighbor or yourself.

Vacation Days

Vacation days are drawing near. How many people will go and return with no benefit whatever, or, at most, very little?

Look over your condition carefully and determine what you need. Then arrange your vacation accordingly. If a man sits in an office the year round, does not go in for athletics at the Y. M. C. A. or anywhere else, and spends his evenings reading or using his brain, the sensible thing for that man would be to go somewhere and use his muscles, not necessarily to the point of deep fatigue but to the point where his blood will quicken and carry new life into the arteries of his brain.

A man who has been working with his muscles all year must

rest them. Of course, he certainly should not spend his vacation in studying and reading. He probably could not. But he should get away from his work and have a good rest first of all and enjoy himself full to the brim.

The main idea is to get away from the things you have been doing the whole year round and do something different. There are countless ways in which this can be done.

Transmitters and Disease

Every once in a while some one bobs up with a claim that deadly diseases lurk in public telephone transmitters. We have commented before on the fallacy of this claim and now it is quite distinctly refuted in a special report made to the California State Board of Health by ESTHER M. SKOLFIELD, assistant bacteriologist of the state hygienic laboratory.

The number of bacteria found, the report indicates, is not sufficient to endanger health. In an ordinary conversation of from one to two minutes the number of bacteria found after a forty-eight-hour incubation period never totaled sixty-seven, the investigation disclosed. Mouthpieces taken indiscriminately from public telephones in most instances disclosed but few bacteria.

A summary of the important conclusions reached is that the only possibility of disease transmission from telephone mouthpiece is by direct contact; that when the mouthpiece is dry the infectious dirt does not appear to become free dust; that the contraction of diphtheria and tuberculosis from public telephone mouthpieces is practically impossible; that the danger of infection from such a source probably is over-estimated, and that sanitary devices and attachments are generally without value.

Telephone Courtesy

A Cleveland woman attempted to call a physician for her child, who had been suddenly taken very ill, but she was so prostrated with fear that she could not find the name in the directory. In her extremity she appealed to "central," who in turn called the supervisor's attention to the case, with the result that the doctor was located in time to save the baby's life.

The mother later wrote a letter to the company operator thanking her for her assistance.

The woman with the sick baby did right when she appealed to the heart of one of her sex. It was exactly the thing to do under the circumstances and undoubtedly more effective than to put everybody from the lineman to the collector on the grill in an endeavor to learn why "one can never get anybody when wanted," or "who is at the head of the blamed old company, anyway?" A telephone operator will usually rise to the critical emergency if given half a chance.—*Youngstown Telegram*.

Making Haste Slowly

We hear a great deal these days about the value of time. Time is money, 'tis said, and who can doubt it? Telephone people will therefore be interested in the success of methodical efforts to save the time of operators and subscribers in Detroit by means of slow and accurate repetition of numbers, described elsewhere in this issue by TRAFFIC SUPERINTENDENT W. A. SPENCER. It is stated that in three years' persistent practice of this plan the percentage of errors has been reduced from 4.5 per cent to 1.3 per cent in an exchange where the calling rate is unusually high, while the answers over ten seconds have been at the same time reduced from 11 per cent to 2.8 per cent.

In these results the truth the old adage, "More haste, less speed," receives striking demonstration.

Spring Storms

Plants of wire companies in the middle west escaped serious damage by floods and sleet storms during the winter and spring just past, but the kindly fates relaxed their vigilance in May and lightning and rain caused heavy damage in a number of exchanges.

While the mischief was not to be compared to that caused by the devastating storms of winter, it was enough to justify the telephone man in the philosophic observation that the telephone business is just one plaguey thing after another, while the only advice which seems appropriate is, "Cheer up, the worst is yet to come!"

The "Face to Face" Idea

When you talk over the telephone, imagine you are "face to face" with the person at the other end of the line. There is only one right way to telephone—the right way is the polite way.

Machine for Moving Poles

A. M. Williams of the Petoskey, Mich., district office, has built a machine to expedite pole moving where the poles are to be moved to one side to make room for road improvements. A heavy pair of wagon wheels, heavy iron pipe, together with a double test chain make up the parts of the machine.

It is possible with this device to lift a pole out of the ground without digging around it. The strength of one man is

Government Monopoly

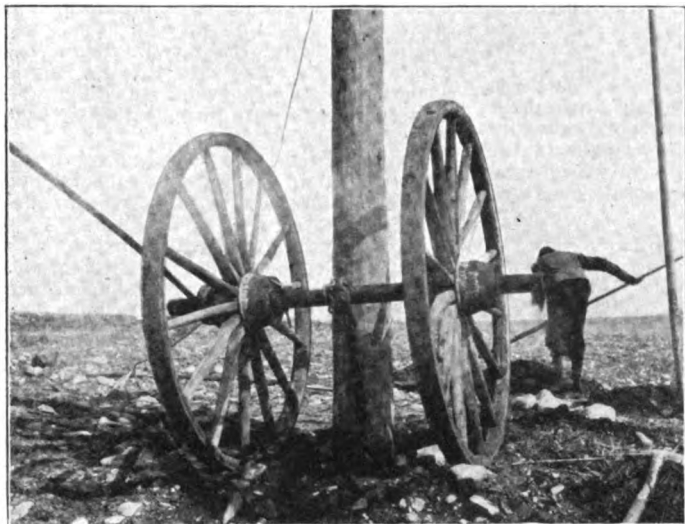
T. P. Sylvan, assistant to the vice-president, New York Telephone Company, recently debated the question of government ownership of the telephone and telegraph with Congressman David J. Lewis, of Maryland, before the Economic Club, Providence, R. I.

In his address, which appears in the *New York Telephone Review*, Mr. Sylvan discusses at length the question as to whether we shall discard our system

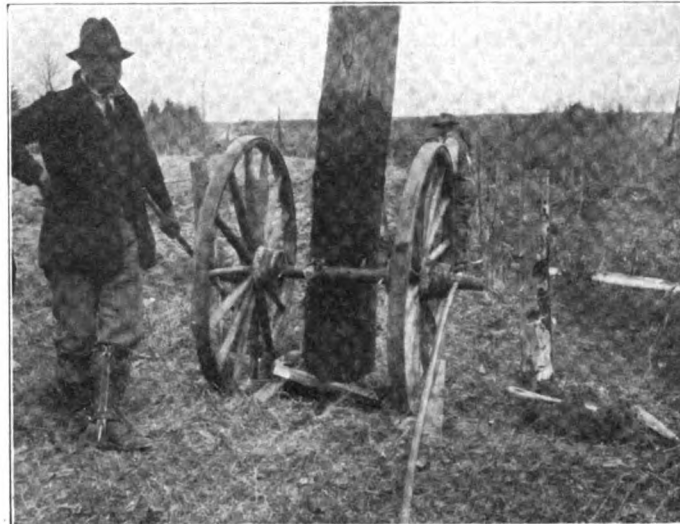
is so far in the lead over countries where government ownership obtains, that comparisons of telephone development are almost laughable."

New Connecting Company

A contract has been entered into with the Saugatuck & Ganges Telephone Company, operating exchanges in Western Allegan County, Michigan, for toll line service. The Saugatuck & Ganges Tele-



"THE BULL," A HOME-MADE DEVICE FOR MOVING POLES. This picture shows how the chain is fastened to the pole and then wound around the iron-pipe axle.



METHOD OF OPERATING "THE BULL." Foreman Morseman, of Petoskey, is shown in the foreground of the picture.

often adequate to raise the pole. Two hand lines are used to steady the pole and it is then wheeled to its new location. Where the new location is but a few feet from the old hole and the wires do not have to be touched, the machine is a great time saver. Recently it has been used very successfully under the direction of Foreman Morseman, in an extensive pole moving job near Charlevoix.

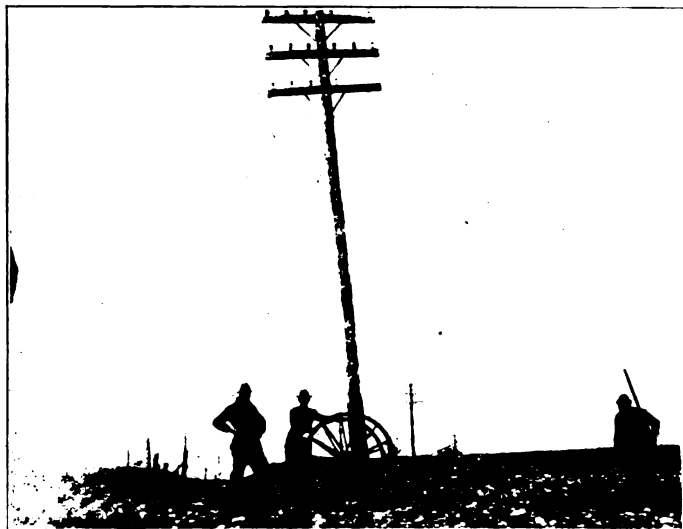
The men who have had the advantage of this machine had christened it the "Bull" in tribute to its strength.

The pictures on this page show the machine in operation.

of government regulation of public utilities and in its place get a government monopoly of communication with no chance for appeal to commission or courts if service and rates are not satisfactory. Mr. Sylvan says:

"Not only, therefore, are telephone rates and conditions of service as they should be, sanctioned by the public, through its regularly constituted public service tribunals, but the public has shown, by the best test possible—the use of the service—the extent to which the telephone service has met with its approval. I mean by this that when it comes to development, the United States

phone Company was incorporated in 1898, and operates exchanges at Fennville, Saugatuck, Ganges, Douglas and Glenn. It is one of the oldest companies in Michigan, and its officers are as follows: J. H. Crane, president; C. W. Bowles, secretary and manager; S. L. Conrad, treasurer; and C. B. Welch and E. H. Atwater, directors. The company expects to make extensive repairs to its system during the coming summer. This connection furnishes Bell long-distance facilities for approximately 400 subscribers in Allegan county who have heretofore been unable to avail themselves of this service.



"THE BULL" IN ACTION.

The weight of one man standing on the lever bar is holding the pole up out of the ground.



"THE BULL" IN ACTION.

A closer view showing pole held out of the ground. Foreman De Witt in foreground.

Department of Sports and Recreations

Doings of Telephone People in the Field of Athletics and Pastimes.

Commercial League—Chicago

STANDING OF THE TEAMS

May 23, 1914.

	Won.	Lost.	Pct.
Chicago Telephone Co.	2	0	1.000
Commonwealth Edison Co.	2	0	1.000
Consumers' Co.	1	1	.500
Harvester Co.	1	1	.500
Swift & Co.	1	1	.500
Western Electric	1	1	.500
Automatic Electric Co.	0	2	.000
Illinois Steel Co.	0	2	.000

The Chicago Telephone Company has, this season, as usual, a team in the strong amateur Commercial League. Play in this league started May 16th. The telephone boys celebrated opening day by applying a tremendous beating to the Consumers Company team. It was a slugging carnival and when the dead and wounded were carried from the field the result was computed as 14 to 4 in favor of the Telephone team. The box-score:

Chicago Telephone Co.	R.	H.	P.	A.	E.
R. Meincke, ss.	1	1	3	0	
Carney, 2b	2	1	2	3	0
Driscoll, rf	2	1	1	0	0
Almquist, lb	0	1	12	1	0
Johnson, 3b	3	1	1	3	0
Delaney, c	3	2	8	1	0
Osborne, cf	0	0	1	0	1
Shannon, cf	0	0	0	0	0
E. Meincke, lf	1	2	1	0	1
Hansen, p	1	2	0	1	0
Nelson, p	1	1	0	1	1
Ryan, p	0	0	0	1	0

Totals 14 12 27 14 3

Consumers'	R.	H.	P.	A.	E.
Quigley, cf	1	2	4	0	1
C. Kempf, 2b	1	0	3	4	1
Babcock, rf	1	1	1	0	0
Ullman, lf	0	1	2	0	0
Austin, lb	0	2	10	0	0
Maney, 3b	1	1	0	4	2
Arnkel, ss	0	0	2	0	0
O. Kempf, c	0	2	2	3	0
Hanson, p	0	0	0	1	0
McMan, p	0	0	0	1	0

Totals 4 9 24 13 4

Chicago Tel. Co. 4 3 2 1 0 1 3 2-14

Consumers' 0 1 1 0 2 0 0 0-4

Two-base hits—Meincke, Carney, Johnson, Hansen, Nelson, Ullman, Austin (2). Home run—Maney. Double play—Johnson to Almquist to B. Meincke. Struck out—By Hansen, 5; by Nelson, Nelson, Ullman, Austin (2). Home run—Hansen, 3; off McMann, 2.

The International Harvester Company team furnished the second set of victims on May 23rd. The slaughter, however, was not quite so great, as shown by the score, 7 to 4. Six errors by the Harvester boys against two by ours tells the story. The score:

Chicago Telephone Co.	R.	H.	P.	A.	E.
R. Meincke, ss.	0	0	0	2	0
Carney, 2b	1	2	2	1	0
Driscoll, cf	2	1	1	0	0
Almquist, lb	2	2	10	0	0
Johnson, 3b	1	1	2	2	0
Delaney, c	1	0	11	2	2
E. Meincke, lf	0	3	0	0	0
Meagher, rf	0	0	1	0	0
Hooker, p	0	1	0	2	0

Totals 7 10 27 9 2

Int. Harvester Co.	R.	H.	P.	A.	E.
Jacobson, 2b	1	1	4	0	0
Rath, lb	1	1	8	2	1
Feltz, lf	1	2	7	0	0
Palmer, 2b	0	0	0	2	4
Kastner, rf	1	0	0	0	0
Ingils, ss	0	1	2	4	1
Butsow, cf	0	1	0	0	0
Hanson, c	0	1	4	1	0
Keeler, p	0	0	2	1	0

Totals 4 7 27 10 6

Chicago Tel. Co. 4 0 0 0 0 0 0 3 0-7

Int. Harvester Co. 0 0 0 0 0 0 0 4 0-1

Two-base hits—Almquist, E. Meincke (2). Jacobson, Feltz (2), Butsow. Three-base hit—Driscoll. Double play—Ingils to Rath. Struck out—By Hooker, 11; by Keeler, 2. Bases on balls—Off Hooker, 2; off Keeler, 1. Umpire—Schwartz. Time—2:06.

Plant Department League—

Chicago

	Won.	Lost.	Pct.
Construction.	2	0	1.000
Nights.	2	0	1.000
So. Installations.	2	0	1.000
Oakland.	1	1	.500
Plant Accountants.	1	1	.500
Harrison.	0	2	.000
Long Lines.	0	2	.000
Wentworth.	0	2	.000

When bats and gloves were gathered up, after the games of May 23rd, three teams in the Plant Department League, of Chicago, were tied for first place in the championship series of the season and three teams likewise were all even for basement honors.

The league season opened May 16th with bright prospects. The boys are all full of "pep" and the fight will be keen until twilight falls on August 22d and the season is over. All games are played at Washington Park. A schedule calling for games every Saturday afternoon from May 16th to August 22d (with the exception of July 4th), has been arranged.

J. W. Wolcott is president of the league and I. W. Boylan, treasurer. Following are the team captains: Central Installation, T. P. McGrath; Long Lines, P. C. Nauert; Harrison, I. W. Boylan; Oakland, E. Fox; Plant Accountants, C. Monroe; Nights, D. J. McIntyre; South Installations, A. G. Wirtz; Wentworth, E. Leach. Scores of games so far played follow:

Games of May 16th.

Plant Accountants, 14; Long Lines, 12.
Construction, 14; Harrison, 5.
Nights, 8; Oakland, 7.
S. Installation, 11; Wentworth, 10.

Games of May 23rd.

Oakland, 10; Harrison, 9.
Construction, 26; Wentworth, 11.
Nights, 14; Plant Accountants, 7.
S. Installation, 10; Long Lines, 3.

Interdepartment Field and Track Meet

The Interdepartment Field and Track Meet on June 13th at Gunther Park, Chicago, is expected to surpass in interest anything yet attempted by those who have promoted athletic meets for Chicago Telephone Company employees. Gunther Park has been engaged for the Chicago Telephone Company's athletic events for the season and this will be the first meet to be held. It will also be the first organized field and track competition among the three functions of the service. While the lineup of teams, at this writing, has not been definitely determined, it is certain that each of the three general departments will have a team and each may have two or more teams. No time limit has been set on the entries, but the judges will have authority to limit the number of entrants. The only restriction on entries is that each individual must be a bona-fide Bell telephone employee.

There will be eighteen events, as follows: Ninety-yard high hurdles; ninety-yard low hurdles; 100-yard dash; 220-yard dash; sixteen-pound shot; sixteen-pound hammer; 440-yard run; 880-yard run; mile run; two-mile run; discus throw; javelin throw; standing broad jump; running broad jump; running high jump; pole vault; fifty-six pound weight; half-mile four-man relay race.

First place in each event and winning

the relay will count the team five points; second place, three points, and third place one point. The total possible points is 158. Thus, if four teams were entered, a team winning forty points would have a chance to win the meet.

Four classic events featured for the first time in a telephonic meet program, will create a good deal of interest. These are the discus throw, the javelin throw, the hammer throw and the fifty-six pound weight. These are events in which the ancient Greeks were proficient before the day of Marathon.

Gunther Park has a large and comfortable grandstand. Even the "bleachers" are shaded. Admission will be free to telephone employees and their guests. Popcorn, peanuts and pop will be extra. The Chicago Telephone Band, recently organized, will make its first formal appearance and furnish music for the afternoon.

The best of accommodations are being arranged for the participants in the events. A separate dressing room or tent will be provided for each team and shower baths will be available.

Gunther Park is on Ashland avenue near the intersection of Clark street. It can be reached readily from downtown Chicago by taking North Clark street surface car. It is a few blocks west of the terminus of the Wilson avenue elevated line.

Baseball in Cleveland

Cleveland is noted for being the strongest amateur baseball city in the world. Amateur baseball is more strongly and better organized and more firmly entrenched in popular favor in Cleveland. Cleveland has, in addition to a professional team in both the American League and the American Association, 465 amateur teams playing independent Sunday baseball, nine leagues averaging seven teams each playing Sunday afternoons, five leagues of the same size playing Sunday mornings, and nineteen leagues possessing more than professional minor-league strength, playing Saturday afternoon ball.

Every large firm in the city aims to have some representation on the ball field, and The Cleveland Telephone Company is no exception to this rule.

Among all the leagues in the city, the Cleveland Technical League is recognized and pronounced the strongest. It is considered a great honor to have a winning team in Cleveland, and to possess one that is proclaimed to be by far the best team playing baseball, in either the Technical League or the City of Cleveland is indeed a great honor. But this is the exact reputation enjoyed by the Telephone Team in the Technical League. Every man playing with the team is an employee of the Cleveland Telephone Company and has the reputation of a star in the position in which he plays.

The Technical League season opened with the games of Saturday, April 25th, and the Bell Telephone was forced to open the season by playing a double header, because of the fact that the previous week's game had been postponed on account of rain. The team had for opponents the Street Cleaners, who had been runners up in the City Championship series last fall. This game was lost

by the Bell Telephone to the Street Cleaners in a ten-inning game, featured by a hard-luck decision given by the umpire on a ball that bounded badly at the plate and on which he allowed four men to score, when under the rules but one run should have been counted. This game was lost by one run and is the only game the Telephone team has lost to date. This team is the most popular playing ball in Cleveland and at every game the spectators number from three to seven thousand people.

Not being satisfied with having the best team in Cleveland representing them on Saturdays, the telephone enthusiasts determined to place a Sunday team in the field. To do this it was necessary to purchase a franchise held by another team in the Sixth City League. Remarkably enough, this team immediately became the "class" of this league the same as the other team is in the Technical League, notwithstanding the fact that not a man playing on the Technical League team is playing on the Sixth City League team.

This team started the season in exactly the same manner as their "Big Brothers" in the Technical League—by losing the opening game by a score of three to two in ten innings. Again following in the footsteps of the other team, they have won every game played by them since.

Despite the fact the Sixth City League games are played starting at 9:30 a. m. on Sunday, this team has almost as big a following as the Saturday team.

The Technical League team is now in second place, but half a game behind first place, and it is freely predicted the Bell Telephone Company will win the Technical League and City Championships this fall. Not to be outdone by their fellow ballplayers, the Sixth City League team is now in first place tied with the team that won the League and Inter-League Championships last fall, and it is also claimed for this team that it will win the championship for the Cleveland Telephone Company.

LEAGUE STANDINGS.

By Kirk C. Schaible.

THE CLEVELAND TECHNICAL LEAGUE.

(Standing of Teams, May 16th.)

Teams.	Won.	Lost.	Pct.
Street Cleaners.....	3	0	1.000
Bell Telephone Co.....	3	1	.750
Peerless Motor Car Co.....	2	2	.667
Standard Welding Co.....	2	1	.667
Globe Machine & Stamp. Co.	2	2	.500
Sterns-Knight	0	3	.000
Rauch & Lang Carriage Co..	0	4	.000

THE SIXTH CITY LEAGUE.

(Standing of Teams, May 17th.)

Teams.	Won.	Lost.	Pct.
Bell Telephone Co.....	3	1	.750
Franze Ponies	3	1	.750
Buckeye Ribbon & Carbon Co.	2	2	.667
Post Office Clerks.....	2	1	.667
Keystone Club	1	2	.333
Postal Telegraph Co.....	1	3	.250
Western Union Tel. Co.....	0	3	.000

Milwaukee Team Hustling

After the games of May 23rd, the Wisconsin Telephone Company team in the M. & M. League was tied for first place with the Milwaukee Gas Lights.

The game of that day was comparatively easy for the telephone boys, who trounced the Northwestern Mutual Lives to the tune of 7 to 1. The telephone team played errorless ball. The score:

Telephones—	R	H	P	A	E
Burkhardt, center field.....	1	0	3	2	0
Krueger, third base.....	1	0	2	2	0
Foulkes, shortstop.....	0	0	2	0	0
Ott, first base.....	1	0	10	0	0
Danenber, left field.....	0	1	1	1	0

Herold, right field.....	2	0	1	0	0
Curley, pitcher.....	1	1	1	3	0
Brennan, catcher.....	1	0	6	2	0
O'Day, second base.....	0	1	1	2	0

Totals.....	7	3	27	12	0
N. W. L.'s—	R	H	P	A	E
Kanitz, shortstop.....	0	1	1	1	1
Gress, second base.....	0	0	3	1	1
Houtemann, catcher.....	0	0	8	3	0
Allen, center field.....	1	1	4	0	0
Illings, third base.....	0	0	1	2	0
Kuolt, right field.....	0	0	1	0	0
R'th'kmp, first base.....	0	2	8	0	1
Breyhan, left field.....	0	0	1	0	0
Masson, pitcher.....	0	1	0	4	1
Totals.....	1	5	27	11	4

Team for Rock Island

The plant boys of the Rock Island, Ill., exchange of the Central Union Telephone Company have organized a ball team, and under the able management of "Chick" Freer, some good games are expected.

Orchestra and Band Organized

The Chicago Telephone Company has organized a band and orchestra composed of employees. At present the orchestra has a membership of about thirty, and will be available for concert work at any future social gatherings. The band will start with an enrollment of twenty-four men and will be recruited possibly to fifty men if they can be found in the employ of the company. It will be used at outdoor gatherings such as ball games, track meets, etc.

The band made its first informal appearance at the Commercial League baseball game at Gunther Park May 23rd, and cheered the telephone nine to a victory over the International Harvester team. The band had rehearsed only twice, but rendered Sousa marches and popular song hits with good effect. When the big flag was to be run up everybody called for the "Star Spangled Banner," which our musicians had not rehearsed. They were equal to the occasion and played the national air satisfactorily. But the flag raising hadn't been rehearsed either, the halliards fouled and the whole performance had to be repeated.

Tuesday, May 26th, the band rehearsed as usual from 4 to 6 p. m. A meeting of the newly organized Chess and Checker Club had been called for 7:30 p. m. The traffic department served a good supper to both organizations and the musicians

fraternized with the strategists over Miss Casey's menu.

The company is extremely fortunate in having on its rolls an able orchestra and band director. Ed. Moebius, the Belmont wire chief, has had twelve years of experience in theater orchestras, and his father was a director before him.

The band can use additional men who play the following instruments: Trombones, tuba, piccolo, clarinets, flutes, oboe, bassoon, French horns, baritone, alto, saxophone. Applicants should communicate with F. M. Carey, Secretary, Room 1901, Official 300, Local 339; H. M. Chubaroff, president, Room 2001, Official 300, Local 721, or E. B. Moebius, director, North Construction Headquarters, Armitage 12034. The list of members is shown below.

Chess and Checker Club

The Bell Telephone employees at Chicago have organized a chess and checker club, to be known as "The Bell Telephone Chess and Checker Club of Chicago."

The company has tendered the use of the club room on the eighth floor of the Telephone building at 212 Washington Street, and has provided the chess and checker paraphernalia.

All Bell Telephone employees in Chicago and suburbs are invited to become members. Players will be arranged in classes, and, prizes will be awarded to each class.

Players, amateurs or otherwise, are urged to enroll at once. Tournaments with other clubs will be arranged next fall, and a summer tournament will be started at once to qualify the chess and checker teams. It is expected that arrangements can be made for expert instruction for the benefit of the members.

Meetings will be held on the first and third Tuesdays of each month. Supper will be served at 6:30 p. m. on the eighth floor and the meeting called at 7:45. Playing before and after.

Thirty employees were present at the first meeting, on Tuesday, May 26th, and about fifty players have been registered. The following officers were elected:

President, F. E. Cahow, engineering department; vice-president, O. M. Campbell, engineering department; secretary, Cassius F. Smith, Hyde Park exchange; custodian, Harry A. Alexander, claims department; assistant custodian, C. J. Peterson, engineering department; financial

ENROLLMENT OF MEMBERS IN CHICAGO TELEPHONE COMPANY ORCHESTRA AND BAND.

Name—	Department—	Instrument—
George L. Adkins.....	Accounting	Tuba-Bass
R. S. Armstrong.....	Traffic	Cornet
F. E. Bagley.....	Maintenance	Euphonium
A. J. Bertaux.....	Ledger	Clarinet
Leo F. Brown.....	State Engineer.....	Violin
Oscar Braun.....	Installation	Trombone
Henry H. Carner.....	Commercial A. T. & T. Co.	Trombone
Frank M. Carey.....	Central Engineer.....	Violin
Harry M. Chubaroff.....	State Engineer.....	Violin
William C. Falkenthal.....	N. Installation.....	Cornet
John N. Finney.....	Accounting	Violin
Samuel Komle.....	Installation	Drums and traps
John L. Lundberg.....	Maintenance	Cornet
Joseph A. Lundberg.....	Installation	Clarinet
Eugene T. Meek.....	Installation	Cornet
E. B. Moebius.....	Installation	Cornet
Edward Richmond.....	Installation	Cornet
Emil Spinle.....	Shop	Flute and piccolo
J. E. Turner.....	Maintenance	Trombone
Robert G. Rand.....	Engineering	Violin
Raymond Remer.....	Claim	Violin
Geo. B. Schiefer.....	Accounting	Violin
W. G. Stuntz.....	Auditor Accounts.....	Cornet
Otto Alvin Stupe.....	Drafting	Piano
Richard Schulze.....	Auditing	Violin (playing oboe part)
Karl S. Walling.....	Sixty-first Garage.....	Violin
L. A. Morse.....	Equipment	Cornet
W. H. Reese.....	Collection	Cornet
E. Kennedy.....	Installation	Drum
A. F. Whipple.....	.....	Tuba

secretary, A. H. Ford, general manager's office.

Publicity committee: A. T. Irwin, chair-

called was that concerning the aggressiveness of Charles H. Grasty, who at the time of the fire was the publisher of the *Balti-*

conversation substantially as follows was held:

"Hello! Is this Mr. Ochs?"

"Yes. Who is it?"

"Grasty, of the *Baltimore News*."

"Where are you?"

"I'm in New York."

"Awfully sorry to hear of your loss."

"Everything has been destroyed in Baltimore. How about that *Philadelphia Times* plant?"

"That plant is at your service."

"What's the price?"

"Go and take it, and if you and I can't agree upon a price later, why, we'll leave the matter to a third party."

"Thanks. That's satisfactory. I'll take it."

In this way a \$150,000 newspaper establishment was secured for the use of the *Baltimore News* in less time than it takes to tell it.

Some Sidelights on Public Ownership

The London telephone system, a government affair, comes in for severe condemnation by the members of the American Hotel Men's Association, who have devoted four days to vigorous, businesslike sightseeing in the metropolis before hustling off to the continent. "Your telephones are simple time-wasters," said Fred Marsfield of Providence, R. I., to the *World* correspondent. "It took me half an hour to telephone from Plymouth, while in three minutes I could put you on to New York, Chicago, or Detroit from my hotel in Providence. But the courtesy of people here is wonderful." Another severe critic of the English telephones is H. N. Casson, a telephone expert, who warns the British postmaster-general against the automatic telephones. "In the United States," said Mr. Casson, "we have found it nothing more than an inventor's dream. That it is a failure was discovered twenty years ago. What is needed here is to spend millions on junctions and trunk lines."—*New York World*, May 3, 1914.



OFFICERS OF BELL TELEPHONE CHESS AND CHECKER CLUB, CHICAGO.

1. Cassius F. Smith, Secretary. 2. F. E. Cahow, President. 3. Harry A. Alexander, Custodian. 4. O. M. Campbell, Vice President. 5. A. W. Blodgett, Chairman Checker Committee. 6. Myron P. Brown, Chairman Chess Committee. 7. P. J. Peterson, Assistant Custodian.

man; E. J. Purcell, O. R. Bohns, Walter Harnacker.

Chess committee: Myron P. Brown, chairman; Walter Harnacker, E. E. Hale. Checker committee: A. W. Blodgett, chairman; F. L. Baldwin, H. L. Ryan.

Prize committee: Myron P. Brown, chairman; A. W. Blodgett, A. H. Ford.

Ducts on Toledo Bridge

The city of Toledo has almost finished a new and very expensive concrete arch bridge across the Maumee river at Cherry street. Among other modern ideas embodied in the structure is the provision of ducts under one of the sidewalks to be rented to public service corporations for carrying electric wires in cables.

The Central Union Telephone Company occupies one of these ducts with a large trunk cable.

Across the channel under the draw span, submarine cables are buried far enough to be safe from dragging anchors and ice gorges.

Prior to the construction of this bridge, telephone connection was maintained by means of two submarine cables laid across the entire channel. The shallowness of the channel and the short distance the cables could be buried made service across the river constantly liable to interruption.

The present method of crossing, however, establishes a safeguard against damage and the patrons of the company as well as its employees will receive the benefit of the added security.

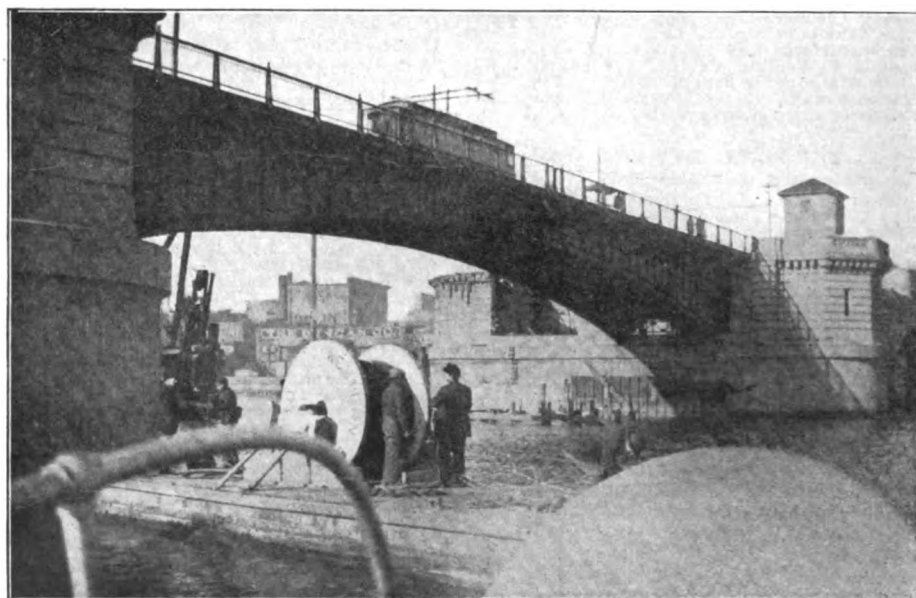
Big Things by Big Men

The tenth anniversary of the Baltimore fire of 1904 recalled many interesting and dramatic incidents during and after the disaster. As usual big men did things in a big way.

One of the most important stories re-

more *News* and now is at the head of the *Baltimore Sun*.

With the *Baltimore News* building in ruins Mr. Grasty promptly arranged with the *Washington Post* to continue his publication temporarily. According to the *New York Times* of February 9, 1904, he then jumped on the midnight train for New York and arrived there early the next morning. In the meantime he had the good fortune to secure an option on a large vacant building in Baltimore. Upon reaching New York the first thing he did was to find a telephone and call up Adolph S. Ochs, of the *Times*, at his residence. A



CHERRY STREET BRIDGE, TOLEDO, OHIO.

Submarine telephone cable being towed out to draw span. Picture taken during construction of bridge.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

"Safety First"

While the automobiles are beginning to bear this new advice "Safety First" and a crusade is going on in many places against reckless driving, a little advice to the business girl who works in the large cities would not be untimely, especially if there were any chance of its being heeded. Within a short time in one of our large cities five of our girls have been seriously injured, one dying of her hurt, because the thought of safety did not come first as they hurried across the street. It is true that one has many things to think of to avoid disaster, but it is not possible to form a habit of observation and hang up a mental sign on the brain "Safety first?" Intent on getting home or to work, a girl rushes into danger in hurrying across the street, or she takes a chance that a car will not start and goes in front of it to the dismay of the motorman and the danger of the girl.

Who has not sometimes wondered why the conductor says, "Look where you step" as if we had no eyes, or why signs are everywhere telling us of the danger of getting off moving cars, or crossing the street before looking each way. It is not because we don't know better, but because so often the mind is so occupied with other things that it is not alert in watching for danger.

We hope our girls will put up a mental sign of "Safety First" and that no more accidents of this kind will distress us.

Vacations Again

Mother Nature is calling her children out into the parks and country and the annual question is again upon our lips, "Where are you going to spend your vacation?" For several years we have suggested a bureau of information or exchange of vacation suggestions in the girls' department. While the majority of our girls have plans of their own for the precious vacation days, there may occasionally be a girl who wishes to know some nice place not too far or too expensive, and a place that has been tested, so that she need not risk her time in experimenting. At Lake Geneva, Wis., for example, the Eleanor Club is again welcoming girls who came back enthusiastic after a week or more spent in the real country with bathing, boating and a taste of camp life.

The five states offer a large field for delightful vacations. People living in different sections of the Central Group are familiar with attractive nearby locations where board may be had at reason-

able rates. While one does not always care to revisit familiar spots, preferring a change, suggestions as to their desirability, however, are beneficial and helpful. The BELL TELEPHONE NEWS will gladly be the medium for such an interchange of suggestions if addressed to "Vacation Editor, BELL TELEPHONE NEWS, Bell Telephone Building, Chicago."

Roses for Two

The picture of the Kedzie girls at Garfield Park, Chicago, is not only an attractive picture but it presents a splendid example of real thoughtfulness and cooperation.

The central figures in whose hands are



KEDZIE EVENING EXECUTIVE FORCE AT GARFIELD PARK, CHICAGO.

roses are Lillie Dwyer and Kate McDermott.

The party was given by Miss Dwyer's many friends in Kedzie evening force who regretted the going of their evening chief operator who had been with them so long. The loyalty and affection was deep but in appreciating Miss Dwyer, who was going to Humboldt, they did not forget to welcome Miss McDermott, her successor at Kedzie, and in an appropriate little speech, Miss Whittall of Kedzie very gracefully presented in behalf of the force large bouquets of roses to each, expressing the affection of the Kedzie girls for Miss Dwyer.

Sorry for the Operator

At the recent reception at Sault Ste. Marie, after the installation of the common-battery system, the whole exchange premises were visited by the public, who received explanations of the new equipment while they wandered about. R. T. White, one of the guides handling these visitors, tells how he carefully explained the ringing machine in the basement to a nice old lady who understood the whole thing thoroughly. "But does the operator really have to run down here every time she wants to call people?" she asked.

Instructions in the Care of Calculagraphs

By C. H. Bishop, Milwaukee.

Calculagraphs are expensive instruments, and while not extremely sensitive, require considerable attention to insure good operation. The following instructions have been prepared and should be read over carefully and reserved for future guidance:

Oiling

Oil should be applied to the operating levers at their joints and where the cams act upon the plunger; also where the plungers slide in the tubes. Oiling should be done about once a month. Do not use oil too freely. A high grade of bicycle or sewing machine oil should be used. In case it becomes necessary to oil the clock mechanism a suitable grade of clock oil should be used.

New Ribbons.

When placing a new ink ribbon you should first remove the round plate, horse-shoe shaped block, platen holder and the card slide; draw out the old ink ribbon, remove it from both spools, remove pins which fasten one end of new ribbon to tape on left end spool, wind ribbon on spool, turning spool wheel in the same direction as when ribbon is fed to left. When about one foot of new ribbon remains unwound, pass it over the two rollers, avoiding folding, fasten the end of the ribbon to tape on the right end spool. Wind the slack portion on wheel by operating right end ratchet. Set ribbon shifter with pointer toward letter "R."

The ink ribbon moves automatically so that each ticket printed should receive its impression through a fresh place in the ribbon. Whenever ribbons are changed the printing dials should be cleaned with a stiff brush. Care must be exercised to prevent brushing the dirt into the mechanism of the clock. Replace card slide, platen holder, etc., and the calculagraph will be ready for use.

Winding

Both main springs should be wound fully twice a week. Do not force the winding. In case the springs are wound too tightly a suction of oil is liable to prevent the springs from acting. Winding once a week will operate the clock, but will not deliver the best power from the main spring. Do not use a worn key. It is impossible to wind the main spring fully with a worn key, and you are liable to injure the main spring winding post. In case your key shows signs of wear order a new one.

Adjustments

To get a good impression on toll tickets calculagraph dials must be cleaned;

then insert a ticket and press the cam handle so as to print the time of the day. If this impression is not clear, lower the adjusting screw one-half turn and try another ticket. In this manner the proper pressure can be applied. It may be found, however, that the platen rubber is worn, which will not permit of the proper adjustment. Do not place a piece of paper under the platen rubber, but order a new piece. Raising the platen rubber by means of paper does not permit of proper operation, and above all do not do any more adjusting than is absolutely necessary.

Holds Court by Telephone

A man in Chelsea, Mich., was recently run down and injured by an automobile speeding through the town on the way from Detroit westward. The Chelsea police telephoned to Kalamazoo and J. M. Rickett of Detroit, was arrested. Mr. Rickett and party were taken to the police court, where a long-distance call was put in to Judge Herbert Wetherall at Chelsea. After Judge Wetherall had told Mr. Rickett over the telephone what the charge was, Mr. Rickett pleaded not guilty and demanded an examination, which was fixed for May 14th. Bail of \$25 was paid to the chief of police of Kalamazoo, after which Mr. Rickett continued on his trip west.

First Woman Telephonist

A woman living in Bay City, Mich., believes that she was the first of her sex to talk by telephone. The woman is Mrs. E. G. Sovereign and, strange to say, she cannot exactly remember what were the first words she said—words which were the forerunners of millions and billions of others poured into the telephone transmitters by her fellow women of later times.

The records of the early development of the telephone afford considerable evidence that Mrs. Sovereign may be right in her belief. Along in the "seventies," Mrs. Sovereign, then Rachael Smith, was a school teacher in Brantford, Ontario. Brantford was the home of the parents of Alexander Graham Bell and many of Professor Bell's experiments were made in the little Canadian city. After the successful exhibition of the telephone at the Centennial Exposition in 1876, Professor Bell took a lot of apparatus and went to Brantford to continue his experiments with a view to adapting his newly-invented instruments to use on longer lines. It was at this time that Mrs. Sovereign had her first telephone talk. Recalling her experience to a representative of the BELL TELEPHONE NEWS, she said:

"The inventor's father and uncle lived in Brantford and were professors of elocution and many an enjoyable evening they gave us in old Kirby Hall.

"The first wire was strung from the Bell residence on Strawberry Hill to the upper rooms of the high school, a distance of between one and two miles. The teachers had first chance to try the wonderful invention. We were naturally a little timid at first and Dr. Cochran started it by talking. Then I followed. You will hardly understand how embarrassing it was, for we had no precedent in that line—knew not what to say. Teachers then had not the word 'Hello' in their vocabulary. That word was shunned, for it was only used among the inhabitants of Vinegar Hill, on the east side of Brantford. It was considered almost vulgar.

"I think my first words were 'Can you

hear my voice,' or something like that. Later we would often go to Dr. Henderson's office evenings to hear the music of the piano come over the wonderful wires from Strawberry Hill.

"Recently I visited Brantford and was shown the site where it is planned to erect a monument to the inventor of the telephone. They were clearing a block of land between Pearl street and Brant avenue. This memorial is an unusual tribute to pay to genius during the lifetime of the man."

Exchange of Exchanges

Columbus, Wis.:

Subscriber: "Operator, give me the hospital."

Operator: "This is the hospital."

Subscriber: "Is that mule ready to be taken home?"

The subscriber thought he was talking to a veterinary hospital.

Milwaukee, Wis.:

Information Operator: "Mrs. Phillips is not listed."

Subscriber: "Perhaps if I give you



MRS. E. G. SOVEREIGN.

more particulars you can find her. Mrs. Phillips is a small woman, quite short waisted."

Janesville, Wis.:

The ticket agent in the St. Paul depot found a lady trying to put a nickel in the penny chewing gum machine, while trying to make a call. She said it was the only place she could find to deposit the nickel.

Main Office, Detroit:

The other days Mrs. Sreenan, information operator, went to the front door to call her son. Instead of calling him by name, she called out "Information." The neighbors are thinking seriously of nick-naming the lad "Information."

Waukegan, Ill.:

Operator: "Number, please?"

Subscriber: "Central, please open the line to Kenosha, I want to talk to Jimmie."

Operator: "Number, please?"

Subscriber: "Ten Oh-Twenty Oh."

He wanted 1020.

Shermerville, Ill.:

Subscriber to Operator: "Can you tell me the number of a fast freight between Chicago and Detroit."

Cadillac Office, Detroit:

Subscriber: "Central, my bell rang."

Operator: "It was a mistake, beg pardon."

Subscriber: "No, Central, it can't be a mistake. You just look around and you will see somebody trying to get me."

Subscriber: "Information, give me somebody who sells fancy dogs."

Subscriber: "Information, I want Mr. Wells, living in Mr. Fischer's house, across the road from Stella McGraw's house."

Subscriber: "Chief operator, I want Main No. 2 (a doctor's office)."

Chief Operator: "What did the operator tell you?"

Subscriber: "She don't say noddings. Effery once in a while, the machine buzzes on the line, dot's all."

Grand Rapids, Mich.:

Subscriber: "Oh, Information! a club met at my house this afternoon, and one of the ladies left her glasses here. I don't remember what her name was, but she lives on Worden street in that big white house."

Information Operator: "I wouldn't be able to locate your party unless I had the name or the correct address."

Subscriber: "Well, what do you know about that? Such dumbheads!"

Subscriber: "Information, I'd like dat Mr. Brown's number dat lives down dere on de corner of Adams and dat udder street."

Information Operator: "We have no telephones listed for Mr. Brown on Adams street."

Subscriber: "Gosh ding those information girls! Dey don't know anyt'ing anyway."

Manitowoc, Wis.:

A rural subscriber connecting at Manitowoc, called at the office for a telephone directory. When asked what line she was on, she said, "I dunno." The clerk tried again and asked, "How do you come into Manitowoc?" She promptly answered, "With a horse."

Spencer, Ind.:

There are several subscribers named White at Spencer. Recently the following conversation took place:

Operator: "Number please?"

Subscriber: "Is this the operator?"

Operator: "This is she."

Subscriber: "Please give me the Mr. White that was operated on."

And the operator connected him with the party wanted.

Glencoe, Ill.:

Subscriber: "I want to get the Mr. — who is in the packing business."

Information: "We have three subscribers by that name."

Subscriber: "Well I want the one with a beard, the methodist."

The call was completed.

Douglas, Chicago:

Operator: "Number please?"

North Subscriber: "North 7-5-two-bits."

North Operator: "7-5-2-5."

Lawndale, Chicago:

An operator, after having difficulty in establishing connection used the phrase, "There is your number." The subscriber replied, "All right, wrap it up."

Waukegan, Ill.:

Operator: "Number please?"

Subscriber: "Give me three aces Central."

After a slight hesitation the operator repeated, "One-one-one."

FOR THE GIRL WHO SEWS

FANCY BLOUSE WITH LONG OR THREE-QUARTER SLEEVES

The blouse of organdie or crepe embroidered by hand makes one of the daintiest possible for summer wear. This one shows a most effective design of chrysanthemums and can be utilized either for washable materials or for silk, made with the embroidery or without it and from one material or from two.



8267 Fancy Blouse, 34 to 42 bust.

Treated after the manner shown here, it is an exceedingly attractive separate blouse, but if made of plain silk with fancy silk for the portion that shows embroidery in the illustration and with net for the chemisette and collar and with a skirt to match, it would become adapted to a handsome afternoon gown. The sep-

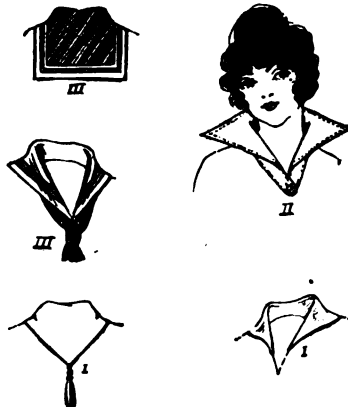
arate blouse, too, can be varied in a great many ways. Colored material with white and colored material throughout are being much used. In place of the embroidered organdie could be used white and colored cotton crepe or cotton voile, or the entire blouse could be made of one of these materials in bright color with the chemisette and collar of white. However it is treated, the blouse includes the newest and smartest features. Made from simple material and simply treated, it is adapted to wear with the tailored suit or odd skirt yet it is exceedingly handsome made with skirt to match forming a whole gown.

For the medium size, the blouse will require $3\frac{3}{4}$ yds. of material 27, 3 yds. 36, 2 yds. 44 in. wide.

The pattern 8267 is cut in sizes from 34 to 42 inches bust measure. It will be mailed to any address by the Fashion Department, of the BELL TELEPHONE NEWS, on receipt of six cents, accompanied by coupon on this page.

SEASONABLE COLLARS IN LATEST STYLES

It has been well and truly said that the accessories often make or mar the costume and this season that statement might almost be narrowed down to collars. Collars are exceedingly important. They fill a really big place in fashionable dress and new ones are in every way distinctive in style and cut. In the picture are three good styles. The one on the figure is made after the Normandy fash-



ion with big points and, as shown here, it is made of organdie lined with itself, that being a favorite material for collars this season. If a daintier effect is wanted, a little embroidery can be used on the points but the plain stitched edges are smart. Collar No. 1 shows the new pointed back weighted with a tassel and collar No. 3 makes the latest variation of the sailor model. All three collars stand away from the neck, that being an all-important feature of summer styles.

No. 1 or No. 3 will require $\frac{1}{2}$ yd., No. 2 $\frac{3}{4}$ yd. 27 or 36 in. wide with $3\frac{3}{4}$ yds. of braid for No. 3.

The May Manton patterns of the collars 8234 are cut in one size only. They will be mailed to any address by the Fashion Department of this paper, on receipt of six cents for the three, accompanied by coupon on this page.

FOR THE VISIT TO THE BEACH

Our Chicago, Cleveland, Detroit and Milwaukee girls as well as all others who live in cities washed by the numerous large and small lakes, which abound in Central Group territory, will be interested in this bathing suit.

To be correct the bathing suit must follow the general trend of fashion, and the material must be well chosen if it is to



Design by May Manton.
8254 Bathing Suit, 34 to 42 bust.

PATTERN COUPON

Fashion Department, BELL TELEPHONE NEWS,
212 West Washington St., Chicago, Ill.

Enclosed find.....cents in 2-cent stamps for which please send me patterns listed below:

No.....Size.....

No.....Size.....

The price of each pattern shown in this issue, to employees of the Bell System, is six cents when order is accompanied by this coupon. Write name and address, and number and size of patterns plainly. Enclose six cents in 2-cent stamps for each pattern ordered.

Name

Address

City or Town.....

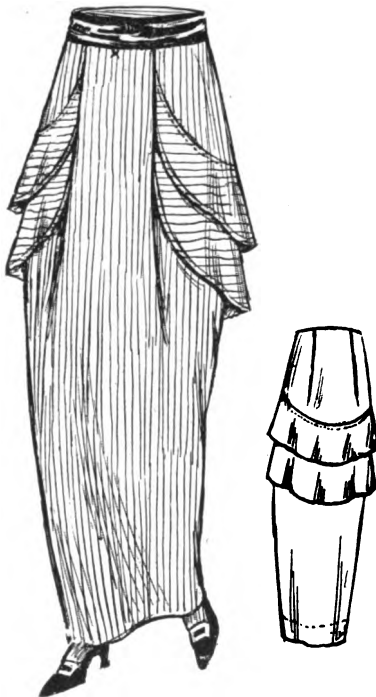
State

retain its good effect as well as serve its practical purpose. This one seems to include all the essential features. It has the new raglan sleeves and a flounced skirt that ripples over the hips. It can be worn with bloomers or with tights. In the picture, the material is a salt water taffeta that is thoroughly satisfactory to wear for it is light of weight, sheds the water and retains its color, but there is serge that is good for the purpose and mohair is in very general use. Blue and black are favorite colors with trimming of white. The women who really enjoy the exercise will, as a matter of course, be more concerned as to the weight of the garments. Those who loll upon the beach and touch the edge of the water only will be likely to consider the costume from other points of view. For the really satisfactory dip into the lake, nothing is better than the silk made for the purpose. The skirt and blouse are joined and closed together at the left of the front, the bloomers being quite separate. If something plainer is wanted, the flounces can be omitted.

For the medium size, the skirt and blouse will require $5\frac{1}{4}$ yds. of material 27, $4\frac{1}{4}$ yds. 36, $3\frac{1}{2}$ yds. 44 in. wide, the flounces $1\frac{1}{2}$ yds. 27, $1\frac{1}{2}$ yds. 36 or 44 in. wide, with $\frac{3}{8}$ yd. 27 and 8 yds. of braid for the trimming; the bloomers 3 yds. 27, $2\frac{1}{2}$ yds. 36, 2 yds. 44 in. wide.

The pattern of the suit 8254 is cut in sizes from 34 to 42 inches bust measure. It will be mailed to any address by the Fashion Department of the BELL TELEPHONE NEWS, on receipt of six cents. Use Pattern Coupon on Page 15.

TWO-PIECE SKIRT WITH HIGH OR NATURAL WAIST-LINE



8273 Two-Piece Skirt.
22 to 32 waist.

The two-piece skirt shown in this illustration can be made with either high or natural waist line. It is a style which will adapt itself readily to the use of light or medium weight material. The lines are smart and the garment presents no difficulties to the home dressmaker. The pattern 8273 comes in 22 to 32 waist measure. For the small size $3\frac{3}{4}$ yds. of

27 in. material or $2\frac{3}{4}$ yds. of 36, 44 or 52 in., are required; for medium size, $3\frac{3}{4}$ yds. of 27 in. or $2\frac{3}{4}$ yds. of 36, 44 or 52 in.; for the large size, 4 yds. of 27 in. or $2\frac{7}{8}$ yds. of 36, 44 or 52 in.; with $1\frac{3}{8}$ yds., any width for flounces, width at lower edge $1\frac{1}{2}$ yds. for medium size. The pattern will be mailed to any Bell Telephone employe by the Fashion Department of this paper on receipt of six cents. Use Pattern Coupon on Page 15.

DAINTY SEMI-PRINCESSE GOWN

Here is a gown that seems to include all the newest and smartest features of the season. The blouse is of the peasant sort finished with a collar that stands away from the neck and allows of a removable frill which forms a most becoming frame and the tunic gives breadth



8218 Semi-Princesse Gown.
34 to 42 bust.

over the hips and the frill beneath the pretty fluffy effect that is so much liked. In one view, the dress is made of foulard with trimming of plain silk; in another, it is made of net, while there are also many other fabrics that could be used with success. In the small front view, the tunic is simulated by the use of the flounce only and so still further variation is obtained. For this frock, one of the pretty silk and wool crepes had been used with trimming of lace. The skirt is made in two pieces with the tunic arranged over it

and the blouse is all in one, although, as a matter of course, straight lengths of the material must be joined to obtain the needed width.

For the medium size, the blouse and skirt will require 7 yds. of material 27, $4\frac{1}{4}$ yds. 36 or 44 in. wide, with 1 yd. 27 for band-collar and cuffs, and the tunic $1\frac{1}{2}$ yds. 27, $1\frac{1}{2}$ yds. 36 or 44 in. wide, with $1\frac{1}{4}$ yds. 36 in. wide for the plaited flounce or $2\frac{1}{4}$ yds. of lace 7 in. wide for the gathered flounce.

The pattern of the gown 8218 is cut in sizes from 34 to 42 inches bust measure. It will be mailed to any address by the Fashion Department of the BELL TELEPHONE NEWS, on receipt of six cents. Use Pattern Coupon on Page 15.

TASTEFULLY DESIGNED DRESS FOR SMALL WOMEN

This is the season when fancy frocks are needed for a great many occasions for the afternoon dance, and also for general afternoon and evening wear. This one is very charming in a youthful way.

For the sixteen-year size will be needed $4\frac{1}{4}$ yards of flouncing 28 inches wide with 2 yards of plain material 36 inches wide and $1\frac{1}{2}$ yards of lace 5 inches wide; or 4 yards of material 27, 36 or 44 inches



8258 Semi-Princesse Dress for Misses and Small Women, 16 and 18 years.

wide, to make the blouse and tunic, with $1\frac{1}{2}$ yards of contrasting material 36 or 44 inches wide for the skirt.

The pattern 8258 is cut in sizes for misses sixteen and eighteen years of age. It will be mailed to any address by the Fashion Department of The BELL TELEPHONE NEWS, on receipt of six cents. Use Pattern Coupon on Page 15.

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Service Standing for April

First Main
Second Canal
Third Wabash
Fourth Central
Fifth Humboldt

Suburban Promotions in April

Aurora, Mary McVicker, assistant chief operator, to chief operator.
Aurora, F. Joss, operator, to supervisor.
Winnetka, H. Schroeder, operator at Wilmette, to assistant chief operator.
Joliet, E. Forrest, operator, to supervisor.

Dinner for Miss Dwyer

On the evening of May 22nd a dinner in honor of Lillie Dwyer was given at the Bos-

ment of all when she said: "I believe in having a pleasant time once in a while without waiting until someone leaves us and has to have a farewell party. This affair is pleasure without regrets."

Alice Twohig, Austin chief operator, who still has a warm place in the hearts of the Kedzie girls, was an honored guest. Mrs. Dewhurst, Bessie Carson, Alice O'Malley, Marie and Carrie Schaffer and Ethel Wilmot were the other guests, and the hostesses were May Samon, Orpha White, Myrtle Wilmot, Edna Lumpp, Gertrude King, Mazie Black, Anna Brignole, Ella Waldvogel, Margaret Burke, Daisy Brennen, Marion Kinsella, Nellie Caution, Elsie Rix, Ethel Carlson, Nellie Twohey, Dorothy Steiner and Edna Boeck.

Luncheon at the La Salle

The evening executive force of Humboldt exchange gave a luncheon at the Hotel La Salle, May 3rd, in honor of Kate McDermott, evening chief at Humboldt, recently transferred to Kedzie office as evening chief. The table was laid for twenty and was beautifully decorated with pink roses and ferns. The large basket of roses in the center was most ornamental and later was presented to Miss McDermott.

Personals and Weddings

Millicent Meszaros, Wabash evening supervisor graduated from Chicago College of Medicine and Surgery, Thursday afternoon, May 26th, at the Garrick Theater, where the graduating exercises were held. During the course of study Miss Meszaros has been pursuing she has had the position of evening supervisor at Wabash exchange, and has done efficient work there as well as in her medical course. She deserves the congratulation she is receiving. Her friends in Wabash are glad to know that she will not resign her position there for the present, at least.

On the morning of April 29th, at eight o'clock, Herbert Ross Howard was married to Josephine Ryan at the Church of the Visitation on Garfield Boulevard. Mr. Howard's many friends in the commercial department presented the bride with a kitchen cabinet, which, we understand, will be put into immediate service upon their return from their honeymoon.

Alma Bazner was recently married to George Flohr. On May 2nd Mrs. Flohr was presented with a cut glass water set by her friends at Wabash office.

Elizabeth Edlund, Wabash order clerk, was married to Friedhoff Soderberg, April 22nd, at the McKinley Park Methodist Church. She was attended by her sister and Kathryn Wilbern. Many of Miss Edlund's friends attended the wedding. On Thursday, April 16th, the Wabash girls gave a luncheon for Miss Edlund. After the luncheon a delightful little play, "How a Woman Keeps a Secret," was given. Margaret Quinlan, Catherine Collins, Janet Hamer, Nellie Kerwin, Edna Buxbaum, Kathryn McWilliams, Catherine Daverine and Elizabeth Frawley acted the parts with much spirit, and they were received with much enthusiasm. Miss Edlund was presented with a set of silver and a bride's book. Miss Bazner and Miss Edlund had many friends at Wabash. The good wishes of Wabash office are extended to them.

W. H. Kendrick, formerly traffic chief for the Michigan State Telephone Company at Kalamazoo, has been transferred to the traffic engineer's office in Chicago.

The Mizpah Girls' Club gave a surprise party Wednesday evening, May 27th, at the home of Caroline Gauger. Miss Gauger, who is Oakland evening supervisor, has resigned to take a trip abroad, and will return in November.

Death of Katherine Zirbes

KATHERINE ZIRBES, formerly Humboldt evening supervisor, died at her home Wednesday, May 27th. Miss Zirbes was associated with the company for nearly ten years and was esteemed highly by all of her friends in the office. For some time she has been absent from the office on account of her health. Sincere sympathy is expressed for her family.

Wisconsin Division

T. N. Moore, Correspondent,
Milwaukee

Chief Operators' Meeting

A meeting of all chief operators of both the Wisconsin Telephone Company and its connecting companies, located in the Eau Claire District, was held in the assembly room of the Wisconsin Telephone Company's building on May 11th. A. L. Hart, division service inspector of Milwaukee, was in direct charge of the meeting, assisted by J. V. Young. Different traffic subjects and questions in connection with operating were discussed.

Telephone Employees Have Narrow Escape

Fire of unknown origin completely destroyed the four-story building on Milwaukee Street, Milwaukee, occupied by the Windsor Hotel and several business houses, early Thursday morning, March 19th.

J. Alderman, Frank Church and Steve Heider, three employees of the Milwaukee construction department, who resided at the hotel, fortunately escaped the flames, but suffered the loss of their clothing and other valuables.



NEW EQUIPMENT FOR HANDLING TELEGRAMS BY TELEPHONE AT THE WESTERN UNION TELEGRAPH COMPANY'S HEADQUARTERS BUILDING, CHICAGO.

This was described in the May issue of the BELL TELEPHONE NEWS.

ton Oyster House by the Kedzie evening supervisors. Miss McDermott, Miss Samon, Mrs. Hardigan, Mr. Conway and Mr. Baldwin were guests. Twenty-one sat down to dinner and afterwards visited the Hippodrome.

Kedzie Dinner and Theater Party

A group of the Kedzie young ladies with their guests took dinner at the Tip Top Inn Tuesday evening, May 26th, and later saw "The Pretty Mrs. Smith" at the Garrick. There were twenty-four in the party, Myrtle Wilmot acting as "Social Engineer." Both the young ladies who gave the party and their guests enjoyed the evening greatly, and one of the young ladies expressed the senti-

ment of all when she said: "I believe in having a pleasant time once in a while without waiting until someone leaves us and has to have a farewell party. This affair is pleasure without regrets."

Roses for Miss McDermott

The day executive force at Humboldt presented a beautiful token of their esteem for Miss McDermott in the form of two dozen American Beauty roses.

Appleton District

Mrs. J. A. Lovejoy, assistant chief operator at Marinette, was hostess at a dinner party at the Murry restaurant. Her guests included the operators of the exchange. The gathering was in the nature of a farewell as Mrs. Lovejoy goes to Sault Ste. Marie within a short time, where Mr. Lovejoy has been appointed district wire chief.

During April the submarine cable crossing the government canal at Menasha gave out and a number of subscribers were out of service for a short time. The broken cable was replaced by a new one.

Fire damaged a fifty-pair cable at Omro at 1:30 a. m. on April 17th and about 100 telephones were put out of service for thirty-six hours. City Foreman Engles, Oshkosh, and crew repaired the damage promptly.

The exchange of the Elderon Telephone Company at Elderon was destroyed by fire on April 12th. A number of other business houses were also destroyed.

Wesley Long, who has been in the employ of the Wisconsin Telephone Company for the past three years as lineman, has been promoted to the position of manager at the Algoma exchange and assumed his new position on April 15th. Harry Hartel succeeds Mr. Long as lineman at Sturgeon Bay. Mr. Nagan, former manager at Algoma, being transferred to Fond du Lac.

The Almond Telephone Company has installed a phantom line between Waupaca and Almond. An additional rural circuit to be connected with the Waupaca exchange has also been finished.

The Rural Telephone Company contemplates making some very extensive repairs on rural lines and the installation of a new fifteen-line switchboard at the Crystal Lake exchange.

C. H. Monahan, commercial agent, Oshkosh, and R. J. Printup, district commercial agent, have been soliciting at several of the exchanges during April and have succeeded in securing a great many new contracts. At Neenah in one week twelve contracts were taken. Seventeen contracts were taken at Berlin in a week and during the two weeks spent at Marinette the solicitors secured thirty-four. During the five days that soliciting was done at Manitowoc five contracts were taken.

Visiting days were held at the Appleton and Neenah-Menasha exchanges on April 24th and 25th. The attendance for the two days at Appleton was 2,000 and the attendance for the two days at the Neenah-Menasha exchange was 1,330.

The Green Bay office recently secured contracts for two No. 2 private branch exchanges as follows: Minahan and Minahan, one trunk and four stations; Green Bay Free Press, one trunk and seven stations.

Eau Claire District

Visiting days were held at Eau Claire and Chippewa Falls on May 8th and 9th. The attendance for two days at Eau Claire was 1,862 and the attendance at Chippewa Falls for both days was 591.

Lillian Lavoi was promoted to the position of assistant chief operator at Chippewa Falls, succeeding Margaret Coleman, who takes Miss Lavoi's place as toll operator.

The estimate covering additional cable facilities at Eau Claire is about completed and Foreman Keene and his crew are preparing to leave for other parts of the state.

Equipment Foreman Peterson has completed the installation of a private branch exchange at the Commercial Hotel. This makes the third private branch exchange installed at the Eau Claire exchange within the past four months.

Foreman Peterson is equipping the Eau Claire exchange operating room with suspended ceiling fans and placing buttress lights in front of the building.

An April 28th the Bayfield exchange experienced a sleet storm, but owing to the exchange being on the south side of the hills, very little damage was done. The Bayfield Farmers' Telephone Company's lines were all down for a few miles, but were repaired promptly with little delay in service.

The operators of the Bayfield exchange met at the home of Gertrude Harding, chief operator, for a social time on Saturday, May 2nd, and they had the time.

Grace Reed, Morse operator at Ladysmith, was taken to her home April 22nd at Kenosha, Wisconsin, on account of illness. R. E. Fillmore is acting as Morse operator during her absence.

On May 1st the joint 10-A office at Hudson was discontinued, the telegraph business being transferred back to the Western Union Telegraph Company's Class 1 independent office.

Additional toll circuits between New Richmond and Minneapolis were completed by Foreman H. Hansen on April 28th. The necessary rearrangements in the New Rich-

mond office were made by Manager E. P. Kelley, Hudson.

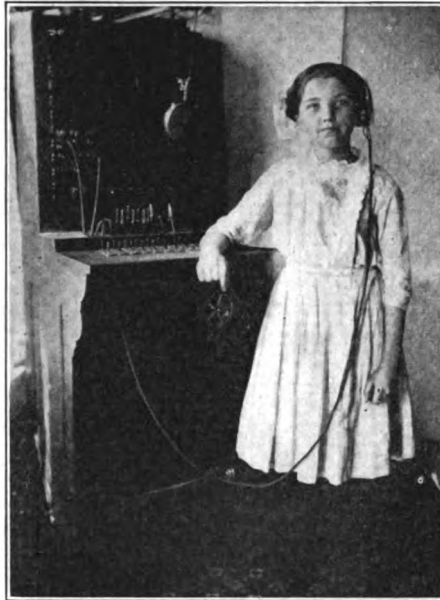
Glenn Howe, manager at Menomonie, and Lewis Zarbock, district foreman, inspected the toll lines between Menomonie and Hudson and reported the lines in good condition. The trip was made in a Ford car. They enjoyed several stops on account of bad roads and nicely illustrated the song "Get Out and Get Under."

Victoria Belonger, formerly assistant chief operator at Stevens Point, called at the exchange on April 27th while on her way from Madison to Rosholt.

E. J. Johnson has succeeded L. A. Urbuteas as district repairman at Abbotsford, Mr. Urbuteas having resigned to take up other work.

On May 1st, Anna Meyer, who for the past three years has very efficiently filled a local operator's position at La Crosse, resigned and on May 11th was married to Otto Metzke, a young business man. La Crosse will be their home.

On May 1st the joint 10-A office at Menomonie was discontinued and the Western



MARY E. BREWER.

Mary E. Brewer, the little girl in the accompanying picture, is but twelve years of age and operates the switchboard at the Boyceville exchange for the Knapp Telephone Company. Her mother is in charge of the exchange and this girl operates the board during the forenoon and, although not a Norwegian, attends a Norwegian school during the afternoon. Mary operated the board alone for three weeks recently during the absence of her mother and did not have a single service complaint. The Boyceville exchange has 125 subscribers.

Union Company established a Class 1 independent office in the Clark Building on Broadway. Former Morse operator George P. Thompson, remains with the telegraph company as manager.

Alma Retelstorf, who recently underwent an operation at Eau Claire, has returned but as yet is unable to resume her duties as toll operator at Menomonie.

Ruby Wilson, supervisor at Superior, who has been ill with scarlet fever, has returned to work.

Rose O'Connor, toll operator at Superior, who was confined to her home with a sprained ankle, has returned to work.

Gertie Johnston and Johanna Wysocki of Superior, spent their vacations with friends out of town.

A crew of 100 men started work on the underground system to be installed at Superior.

The manager and employees at Superior each received a beautiful Easter lily plant in appreciation of the good services received by the Superior Floral Company.

The Superior exchange is still holding regular plant meetings every second and fourth Friday of the month.

Ellen Bodine, toll operator at Ashland, has resumed her duties after a two weeks' visit at Grand Forks, N. D.

On April 27th a thirty-station private branch exchange contract was secured from

the Knight Hotel at Ashland. D. U. Parkinson and W. P. Hyland secured the contract.

The Juneau Electric Company has sold its exchanges at New Lisbon, Camp Douglas and Hustler to the New Lisbon Mutual Telephone Company, Al. Klinker, president. The Juneau company has also sold the Necedah exchange to Hazel B. Bulger, who will operate it under the name of Necedah Telephone Company. The connecting arrangements heretofore existing with the Juneau company will continue with the new owners.

On the evening of April 20th the employees of the Hudson exchange gave a surprise party for Ella Heggen, who has resigned her position as toll operator to accept a position as chief operator in North Dakota. The evening was spent in music and cards, after which a fine lunch was served.

The offices at the Hudson exchange have been redecorated and now present a first-class experience.

On April 14th, the private branch exchange at the Culver Hotel was completed. This is the first private branch exchange at Ashland. On April 13th W. P. Hyland, commercial agent at Ashland, secured a contract for a twenty station private branch exchange for the Lenox Hotel.

Thursday evening, April 16th, a plant meeting was held in the sun parlor of the Knight Hotel. The following attended the meeting: Mr. Killam and Mr. Schroeder of Milwaukee, Mr. Skolsky and Mr. Young of Eau Claire, Mr. Wilcox of Ironwood, Mr. Wilmot of Bayfield, Mr. Schultheis of Washburn and the Ashland force.

Ellen Bodine, toll operator at Ashland, is visiting relatives at Grand Forks, N. D. Agnes Carlson, former operator, is taking her place.

April 2nd, D. U. Parkinson, manager of the Ashland exchange, held a meeting of all the employees, and subjects were discussed relating to each department, in the endeavor to bring out suggestions that would make the service more efficient and satisfactory. After the meeting lunch was served.

Janesville District

Olaf Meinseth, repairman at Janesville has been transferred to Evansville. He is succeeded at Janesville by A. Olsen, formerly with the equipment foreman at Milwaukee.

Helen Bester of Evansville has returned to work after a protracted illness.

Edith Hynes is now employed as relief operator at Evansville, succeeding Eva Bly, resigned.

Madison District

Oscar Quale, manager at Baraboo, has purchased a large, ferocious bull dog which he expects to accompany him when he is collecting his final accounts.

Della Jorge, local night operator at Baraboo, has resigned to be married.

The spacious plant room of the Fort Atkinson exchange presented a festive appearance on Saturday evening, April 18th, when the employees and a few guests enjoyed a banquet and dancing party. It was the first of its kind ever attempted and proved a great success.

Selma Fischer, former assistant chief operator at Fort Atkinson, was promoted to chief operator and Minnie Cunitz was appointed assistant chief operator, May 1st.

Manager H. G. Miller of Jefferson and Wire Chief F. Biederman attended a plant meeting at Watertown May 8th.

Florence Ladien, chief operator at Jefferson, attended a chief operators' meeting at Watertown recently.

On Thursday, April 16th, occurred the wedding of Harriet Leudtke, the Jefferson chief operator. Our informant neglected to mention the name of the bridegroom. The bridal couple left for a week's visit with relations at Milwaukee and Chicago, and will be at home to their friends June 1st.

The Juneau office has undergone a thorough cleaning, being repainted and kalsomined.

Edna Pillsbury, chief operator at Waupun, attended the meeting at Watertown April 17th. She went from there to Milwaukee to spend several days.

Manager J. F. Browne, of Waupun and two linemen, Charles Seeley and William Graves, took an automobile ride to Beaver Dam where they attended the plant meeting.

The joint 10-A office at Waupun was discontinued on May 1st and the telegraph business transferred back to the Chicago, Milwaukee and St. Paul depot. Mrs. McDonald, former Morse operator, returned to her home at Superior.

Pearl Johnson resigns her position as

night operator at the Stoughton exchange and is succeeded by Bernice Mickelson.

Anna Gulbranson, chief operator at Stoughton, attended the traffic meeting held at Janesville recently.

Alma Garner, local supervisor at the Madison exchange succeeded Dorothy Brandt as private branch exchange operator at the University exchange.

Mr. Fursman, manager of the Majestic theater at Madison invited the entire local and long-distance force to be his guests at the theater one night recently.

Alma Waldorf, who has been with the Wisconsin Telephone Company at Madison for five years, and assistant chief operator for the past year and a half, was married to Dr. B. Finnigan on May 5th at 9 a. m. at the Holy Redeemer church. The bride wore a gown of white charmeuse trimmed with seed pearls and shadow lace. She wore a veil of tulle crowned by a dainty wreath of lilies of the valley and smilax. She carried a shower bouquet of lilies of the valley and roses. After the wedding breakfast which was served at the bride's home, Dr. and Mrs. Finnigan left for a trip to Chicago, Milwaukee and Sparta. Miss Waldorf, who was very popular among the operating force, was handsomely remembered and many pre-nuptial entertainments were given in her honor.

Roland Burhenne, troubleman at Hanover exchange, Milwaukee, was married on May 16th to Edna Siegel.

Ohio Division

**B. T. Calaway, Correspondent,
Columbus**

War Plans in Columbus

Plans are complete for the mobilization, at Columbus, of the national guard if ordered by the war department, and orders have been issued by the adjutant general's office to the Central Union Telephone Company to be ready to install a 100-line board at the camp in Arlington, northwest of the

city. Service will be extended to all the various headquarters and long-distance trunks will connect direct to the toll board. All the necessary equipment is on hand and ready to be installed immediately.

P. B. X. Development in Columbus

The following private branch exchange contracts were secured at Columbus during April:

	Trunks.	Terminals.
The Columbus Pharmacal Co.	1	5
The E. T. Miller Co.	1	6
The John Wildt Evaporated Milk Co.	1	5

The Ford Motor Company moved its one switchboard, two trunks and four stations to a new location at Cleveland and Buckingham avenues.

Akron District

A thirty-foot extension to the Central Union Company's office building at Youngstown has recently been completed. This extension was necessary to accommodate additional central office equipment to care for rapid growth in Youngstown.

Underground conduit is being extended in South Main street, Akron, from Thornton to Crozier street, in advance of paving.

A 200-pair aerial cable is being erected on Howard street, Akron, to provide additional facilities on North Hill.

Chillicothe District

Edgar T. Reynolds, cashier and telegraph operator at Nelsonville, and Nellie Shields, clerk and telegraph operator at Hillsboro, have been transferred from Class 10-A offices to the Western Union Telegraph Company, as this class has been discontinued.

J. F. Bell, collector at Zanesville, has resigned.

Della M. Farabee, collector at Newark, resigned to be married, and is succeeded by Mabel McNealy.

Vernon L. Bush, clerk at Nelsonville resigned, and is succeeded by Effie Phelps. Mabel Kourt, collector, resigned to be married and Edna Mae Rhodes succeeds her.

New directories have been issued at Nelsonville, Portsmouth and Mt. Vernon.

Zanesville exchange made a net gain in stations for April of fifty-nine, which makes a net gain of 143 since January 1.

The office collection system recently placed in effect at Lancaster and Zanesville have materially aided collections and good results have followed.

Columbus District

F. E. Smith, district commercial accountant, who has been laid up with a bad ankle, is expected back on the job in a short time.

Mrs. Alma Fidler, clerk in the commercial department, is at home suffering from an affection of the eyes, which it is earnestly hoped will yield to treatment and permit of an early return of Mrs. Fidler.

Collections at Columbus were unusually good in April, in spite of the moving season; also the managers of the subordinate exchanges report the collection outlook good.

D. H. Morris, commercial manager at Columbus, has moved into his fine new home at 70 North Ohio avenue.

The commercial accounting department has occupied its new quarters on the fourth floor of the Commercial building, and with the arrival of H. C. Breininger, division auditor of receipts, from Cleveland, May 15th, the organization was complete.

The gain in stations for April was 133, making a total of 22,352 stations in Columbus May 1st.

The girls of the North office again demonstrated their social ability by making a great success of their second dance. The affair was attended by 440 people.

Glen Dunham, supervisor at North office, entertained at her home in honor of Louise Wiley, operator, a bride elect. Miss Wiley received many pretty and useful presents along with best wishes for her happiness.

"How do you like my suit?" and "My cap doesn't fit" were some of the remarks heard at the "Stag Party" given in the rest room at the North office on March 17th. After all had admired the different suits (for that was all the girls did) light refreshments were served to the "boys."

The Vocare Girls of Hilltop office entertained with a dance on Monday evening, May 14th, at the Premier Academy.

W. A. Hoff, equipment engineer for Ohio, returned to his work the first of April after being absent for weeks on account of illness. Mr. Hoff has been a long time in the service of the company and has held positions in the engineer's department when headquarters were in Indianapolis, and in the chief engineer's office in Chicago, besides his present one as equipment engineer. Everywhere he has made friends, all of whom will be glad to know of his recovery.

An estimate recently approved provides for the installation of conduit and a 600-pair cable for a distance of 8,000 feet west of the Hilltop office. This construction will provide facilities on the hill just west of the valley which was devastated by the flood of 1913.

Toledo District

Contracts have been taken for private branch exchanges at Toledo as follows:

Berdan & Company, 1 trunk, switchboard and 5 stations.

Chas. H. Fuller Company, 1 trunk, switchboard and 4 stations.

Irving B. Hiett Company, 1 trunk, switchboard and 4 stations.

Owens Bottle Machine Company, 1 trunk, switchboard and 4 stations.

E. H. Close Realty Company, 1 trunk, switchboard and 4 stations.

Toledo Dairy Company, 2 trunks, switchboard and 4 stations.

Newton B. Penny, who for a number of years has been manager of the Crescent Telephone Company at Weston, Ohio, has left the service of the telephone company to go into business in Toledo where he recently

HUSSEY-BINNS SHOVEL CO.

PITTSBURGH, PA.

INGOT PROCESS



THE ONLY
ONE-PIECE
CRUCIBLE
CAST STEEL
PLAIN BACK
SHOVEL
MADE



EXTRA
STRONG
SOCKET
AND STRAPS
WITHOUT
EXCESSIVE
WEIGHT

Thick Centre Blades
ARE THE MOST DURABLE

TELEPHONE WIRES

ENAMEL,
SILK,
COTTON,

Magnet Wire

PROMPT DELIVERIES

ROME WIRE COMPANY
ROME, N. Y.

moved his family. Harry T. Hirth has been promoted from the position of lineman to manager, succeeding Mr. Penny. Otis John Dewese has accepted the position of lineman succeeding Mr. Hirth.

R. J. Heller, commercial manager at Bowling Green, is getting along nicely from his recent operation and expects to be able to return to duty soon.

Verna Wentling, who has been an operator at the telephone exchange at Wharton, Ohio, for more than six years, resigned her position recently and is to be married soon to Ray Musgrave of that vicinity. The position at the exchange will be filled by Marie Rummell. (Wharton is a connecting company point.)

Henrietta Ramgey, toll clerk of the Kenton Telephone Company, Kenton, Ohio, was married on April 16th to LeRoy Hamilton of Kenton. Miss Ramgey's position was filled by Maude Gary.

The Kenton Telephone Company, Kenton, Ohio, recently added a 200-line switchboard, 100 lines of which will take care of former subscribers; the entire addition being necessary on account of increased business. This company is in receipt of a large shipment of cable, also necessary to take care of increased business.

E. J. Strohl, wire chief at Fremont, who has been on the sick list for some time on account of blood poisoning contracted from a scratch on the ear while working on the lines, is improving slowly.

The Western Union Class 10-A office at Gallon, Ohio, was discontinued May 1st and the Central Union offices were moved back to the old quarters.

New central office equipment is now being installed in the Central Union Company's recently completed building in East Toledo. The building is a two-story brick, fireproof structure ninety-five feet long and thirty-eight feet wide. It was erected at a cost estimated at \$34,936. The switchboard will consist of four subscribers' sections and two trunk sections, estimated at \$47,161.

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Belmont Subscriber Entertains

Operators of the Belmont office, Indianapolis, feel that they are satisfying at least one subscriber. One day recently the Belmont chief operator received a call from Belmont 249, Walter King, a subscriber, who expressed his appreciation of the service that he had been receiving, stating that it had been excellent. He said the operators were so accommodating that he wished in some way to show his appreciation, and had decided, in order that none would be slighted, to entertain them all at a party at his house. On Thursday evening, May 7th, the party was given, and a very beautiful one it was. The evening was spent in music, dancing, and games. Pretty prizes were awarded the winners of several contests. The girls all had a delightful time. All but four of the Belmont employees attended.

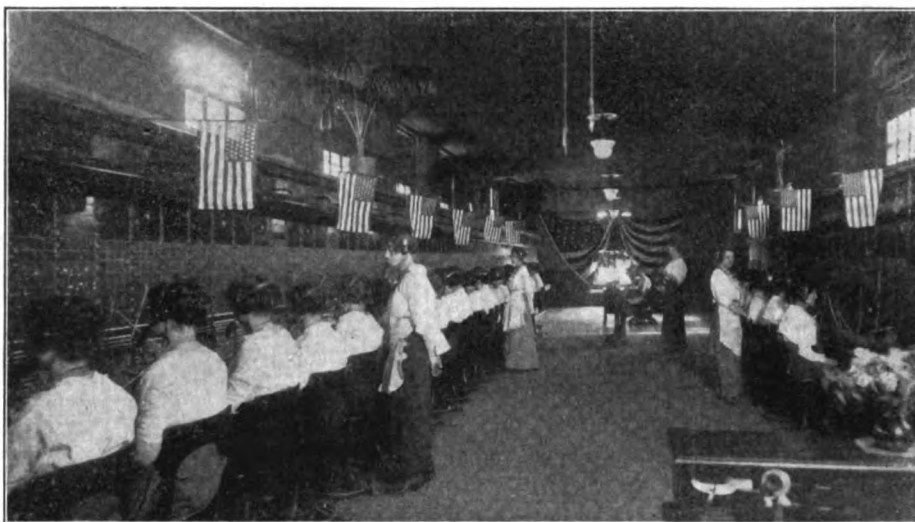
The following is a letter of thanks sent

by the Belmont chief operator to Mr. and Mrs. Walter King:

"I wish to thank you for myself and in behalf of the girls of the Belmont office for the beautiful entertainment which you gave in our honor on Thursday night, and to express our sincere appreciation of your kindness to us.

"It is very gratifying to know that our efforts are appreciated by our subscribers.

truck, and one float, beautifully decorated in the May-day colors. The first automobile was occupied by Louise Staub, assistant chief operator, and Mr. Gregoire, the district wire chief. The next automobile was occupied by Emma Woelfert, clerk of the Prospect office, and Harry Bacon, chief installer. Then came the float, carrying all operators, wearing green and white caps with blue bells. All wore their transmitter and receiver sets.



PROSPECT EXCHANGE, INDIANAPOLIS, DURING "OPEN HOUSE."

It is indeed encouraging and an incentive to put forth greater efforts in serving our patrons."

Indiana Bell Telephone Society

The regular monthly meeting of the Indiana Bell Telephone Society was held at the University Club on Monday evening, May 6th. After the usual informal dinner the meeting was called to order by President Wampler. The guest of the evening was Judge Duncan, chairman of the Public Utilities Commission of Indiana, who discussed in an informal way the principles underlying the regulation of public utilities. His talk was very interesting and instructive. He was given a vote of thanks by the society, with the wish that he might again meet the members informally when convenient for him to do so.

May Day Celebration at Prospect

On May 1st the Prospect office kept "open house" in honor of the South Side May Day Celebration. The parade, which was held in the morning, was about two miles long, with Hulda Tebbe as Queen of the May. Edna Harkins, supervisor at the Prospect office, was one of the attendants to the queen. The Prospect office was represented in the parade by two automobiles, one line

They received much applause and were enthusiastically received all along the route. It was estimated that about 900 people visited the exchange during the day. The halls and rooms were decorated in the May-day colors, and the operating room presented a holiday appearance, with its palms and flags. Carnations were presented as favors. The visitors were very much impressed with the work and the way it is carried on. It seems that their ideas were altogether different. Many favorable comments were received on the comfortable quarters provided for the operators. Some of the remarks made by the visitors were very amusing to the employees, one especially, which was made by the visitors living in the vicinity of the exchange, who were under the impression that the rest room and dining-room windows which faced the street, were in the operating room, and that when operators were seen looking out, eating apples and enjoying themselves, that these operators were "playing hooky" from the board. Every visitor expressed gratitude for having an opportunity to see how the operators perform their task, and they will gladly exercise more patience in the future.

Telephone Man Helps Capture Thug

H. A. Bolin, northern district line supervisor, was congratulated by the police department and his friends for his part in the capture of a negro thug in Indianapolis, on the night of May 9th. The negro had held up a man on Capitol avenue and was attempting to escape, with several policemen and citizens in pursuit. Bolin and a man named Jack McDonald, "rushed" the negro and succeeded in disarming him and holding him until the police arrived.

Address by Mrs. McWhinney

Vonnie Nelson, toll operator, invited Mrs. Adaline McWhinney, the welfare supervisor of the Indianapolis traffic department, to address the Madison Avenue M. E. Church on Sunday morning, May 10th, the occasion being "Mothers' Day." Mrs. McWhinney spoke first extending a greeting to the mothers who were present, telling them of the great opportunities and obligations that were theirs in moulding the lives of their children. She then extended a message to the "shut in" mothers and those who were kept away for various causes, and last of all, she paid a beautiful tribute to the mothers who were gone. Immediately following Mrs. McWhinney's address, two little girls distributed white carnations to all the mothers present. Mrs. McWhinney's talk was very much appreciated by all who heard her, and those who were not permitted to attend missed a great treat. Mrs. McWhinney was entertained after the services at dinner by Miss Nelson.

Lecture by Mrs. Pratt

Mrs. Nannette Magruder Pratt, of New York City who, for the past twenty years, has been a teacher of Physical Culture, was



PROSPECT EXCHANGE FLOAT IN MAY DAY PARADE, INDIANAPOLIS.

Left to right: H. Hendershot; chauffeur; Beessie Kennedy, Amy Murray, Hazel Crickmore, Nellie Jensen, Emma Mathews, Carrie Trimbora, Muriel Kingsley, Ruth Carson, Charlotte Seyffert, Adah Coffey, Beulah Pyatt, Leona Holtz; seated, Louise Staub.

a guest of the Indianapolis traffic department during the afternoon and evening of April 30th. A large number of the employees from the different departments assembled on the roof garden of the Main office building, where Mrs. Pratt delivered an interesting lecture on physical culture, demonstrating the wonderful results which she personally had attained through long years of training. Her lecture and demon-

Central District

Mrs. Marion Dawson, matron at the Prospect office, Indianapolis, entertained with a dinner Thursday evening, April 30th, at the home of her sister on College avenue, in honor of Laura Croas, one of the Prospect operators who was leaving for Kansas City. A number of the Prospect girls were guests. Leona Noble, Woodruff operator, enter-

the elbow. It was about two weeks before Miss Welch was able to return to the office.

The Irvington office operators were very proud of their record during the month of April, as there was not one day of absent time during the entire month.

The Victor-O-La Club, which is composed of the North office girls, gave a May-day dance at the Hyde Park Hall, on the evening of May 1st. About 120 girls and their



MAY-DAY DANCE OF VICTOR-O-LA CLUB, INDIANAPOLIS.

stration were received enthusiastically by those who are members of the Traffic Department Physical Culture Class. We are very much interested in this science, knowing that it imparts grace, suppleness and poise to those who have taken advantage of it. We feel that it is particularly beneficial to those engaged in telephone operating, as it strengthens the body, tones the nerves, and teaches control and self-possession, attributes which are essential to attain success in the telephone profession. After the lecture Mr. and Mrs. Guy Green entertained with a dinner at the Dennison Hotel, for Mrs. Pratt. The other guests present were Miss Newport of New York City, an associate of Mrs. Pratt; Mrs. Adaline McWhinney; Anna Welch, and Jennie Newnam.

Death of Oscar Holland

OSCAR HOLLAND, aged thirty-two, a lineman employed by the Central Union Telephone Company at Bedford, Ind., was accidentally killed, May 16th, by coming in contact with a high tension electric light wire belonging to the Interstate Public Service Company.

Mr. Holland was at work restoring telephone service after a fire which had burned out some Central Union cables. It is not known just how he happened to touch the wire carrying the heavy current.

Mr. Holland had been transferred to Bedford from Terre Haute in September, 1911. He leaves a widow and one daughter.

tained informally at her home, on the evening of May 8th, for a number of her fellow-operators.

Hilda Adamson, North supervisor, sailed for Scotland, May 11th, to visit her grandparents in Glasgow. She expects to remain until the fall of 1915.

Abbie Rowe, of Mt. Vernon, Ind., has taken a position as toll operator at Indianapolis. Hazel Evans, toll operator at Indianapolis, announces her engagement. Our informant did not supply the name of the prospective bridegroom. The marriage is to occur in June.

Miss Gardner, chief operator at Brazil, Ind., was the guest of the Indianapolis traffic department, May 11th. A luncheon was given in her honor in the dining-room of the Main office building.

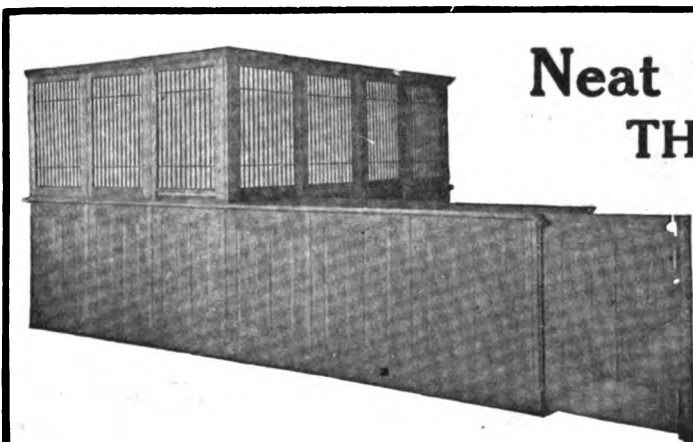
On May 1st the following changes were made in the executive staff of the Indianapolis traffic department: Anna Dugan, who has been ill, was able to return to work, and was placed in charge of the North office, succeeding C. V. Hollis, who was transferred to the district traffic chief's office as service inspector; Mrs. Mary Harbison succeeded C. C. Mason as chief operator of the Main office.

Anna Welch, Indianapolis Training School instructor, and also instructor of the physical culture classes, met with an accident on the evening of April 14th. In getting ready for the class she went to the roof garden, where she became dizzy and fell, striking her arm on the cement floor, causing a dislocation of

guests, chaperoned by Mrs. McWhinney, attended. Among the guests were Mr. and Mrs. Guy Green. This club was formed with the object in view of providing a victrola for the rest room at the North office, and the proceeds from this dance were to be used for this purpose.

On the evening of April 23d, Guy Green, Indianapolis District Traffic Chief, entertained at his home with a dinner for R. L. Gleason, district traffic chief of the Indianapolis A. T. & T. office, who was soon to depart from this city for Montgomery, Ala., where he is to assume a position with the A. T. & T. Company. The special feature of this dinner was that ladies were conspicuous by their absence, the only one present being Phyllis Green, the three-year-old daughter of the host. Besides the guest of honor, were C. L. Sawyer, district traffic chief of the southern district; and J. P. Hays, district traffic chief of the northern district. Mr. Green's home was made fragrant with spring flowers. The table decorations were sweet peas. After dinner the guests retired to the living room, where they enjoyed music over their cigars, and "cussed" and discussed affairs pertaining to the telephone business generally.

Friday night, May 8th, the toll operators gave a linen shower for Mrs. Walter Baxter, formerly Lucille Lay, a toll operator. The evening was spent in games, music and dancing, after which refreshments were served.



Neat Substantial Inexpensive THE BROWNELL SYSTEM

of Interchangeable Unit Office Fixtures
Shipped knocked-down and assembled with a screwdriver.

All styles of telephone booths.

Send for Catalog

C. H. BROWNELL
PERU INDIANA

Northern District

Helen Harnish, local operator at Auburn, has been seriously ill for several weeks with typhoid fever.

Audrey Tomlinson has resigned her position as toll operator at Auburn.

E. T. Bonds, manager at South Bend, who has been confined to his home during the past month with an attack of rheumatism, is slowly recovering.

Lillian Schlaman, stenographer at South Bend, who has been absent for the past two months, has gone to the country hoping to improve speedily.

The following letter was received by the South Bend manager:

Dear Sir: Please send me your free sample for appendicitis as I suffer with it terribly.

W. G. Stedman, commercial agent at South Bend, is suffering with two-ritis. This disease usually starts when Mr. Stedman gets a contract for a No. 2 private branch exchange and continues until not less than three are secured. The disease is not fatal, but quite inconvenient for other employees, as the eyes of the person afflicted become fixed on No. 2 private branch exchanges, and nothing can tempt the patient or break the fever until the class of service desired is secured.

The South Bend Watch Company has installed a switchboard and twenty stations.

The C. C. Shafer Lumber Company is having installed a No. 2 private branch exchange at South Bend.

A farewell dinner was given by the South Bend and Mishawaka commercial employees for G. S. Burt, plant chief, who has been transferred to Indianapolis. C. G. Carpenter the new plant chief, and Mrs. Carpenter were present, and all partaking of the dinner refuse to believe it was prepared by the three amateur cooks in the commercial department.

Ernsal Eckstein, formerly night operator at Shelbyville, and E. R. Higgins were married by the Rev. Father Kalein at the St. Joseph Catholic church, Wednesday, May 6th. They left for a short trip, after which they will reside at 115 West Locust street.

On Wednesday, May 6th, the Shelbyville operators gave a shower to Mrs. Alta King, in honor of her new daughter Mary Frances. Mrs. King was formerly chief operator. Many

beautiful as well as useful presents were presented to the new arrival.

B. B. Earley, Shelbyville manager, and H. R. Matlock, chief inspector, made a trip inspecting the toll lines around Hope, Columbus, and Greensburg, May 5th. The trip was made in a Metz car.

Marguerite Wharton, former toll operator at Alexandria, Ind., who resigned April 13th to take up training as a nurse at Anderson Hospital, was taken with a severe illness and died April 23d. A number of operators and employees from the surrounding exchanges attended the funeral held Sunday afternoon. There were many beautiful floral offerings from subscribers and former fellow employees. Manager Porter, of Elwood, the Misses Leah McCullough, Ethel Owens, and Elizabeth Wellington, were among those who attended the funeral.

Ellen Reehling has been promoted to toll operator at Alexandria, and Mrs. Dollie Oyler and Martha Keys have taken positions as operators.

The Roller Skating Club at Elwood had a royal treat of ice cream and cake at the last meeting. The fair skaters surely have the art of cake baking down pretty fine, unless their mothers or others are responsible for the quality.

Elwood had a net gain of fifteen stations, \$204 annual revenue, and secured thirty-nine contracts during March.

Manager Porter secured a contract for pay station in the Traction Passenger Station at Elwood, a convenience which the citizens, as well as the traveling public, will appreciate.

The marriage of Lena Auer, local operator at Kendallville, and Melvin Mettert of Goshen, took place May 2d. Several informal dinner parties were given in honor of the bride, also a miscellaneous shower by the operators. Mr. and Mrs. Mettert are at home to their many friends in Goshen, Ind.

The *La Grange Standard* prints some interesting reminiscences of the early experiences of Charles S. Griffith, who built and operated the first telephone line out of La Grange. This line was afterwards sold to Johnston Brothers. Mr. Griffiths was an enthusiastic amateur telegrapher in the "seventies," and his energies somewhat naturally turned to the telephone after it was invented.

Ed. Beams, owner of the connecting exchange at Spencerville, DeKalb County, is in-

stalling a new Western Electric switchboard. Mr. Beams keeps abreast of the times. The Spencerville service is first class.

Southern District

The plan of receiving payments for service at the office or by mail is working very successfully at Crawfordsville, and is more satisfactory to the subscribers than the old plan of sending collectors.

Chief Inspector John Yarbrough resigned from the Washington exchange April 4th. Mr. Yarbrough has accepted a position as construction engineer with the Pike County Telephone Company. W. E. Chambers, an old employee of the Central Union from Vincennes, is now filling the vacancy.

Equipment Foreman Smith with Mr. Ocheltree, of the equipment department, installed forty answering jacks at Washington.

G. C. Thompson, southern district cable man, spent the first week in May at the Washington exchange, on cable repair work.

J. C. Flint and staff of competent operators, of Montgomery, Ind., visited the Washington exchange during the week of May 4th.

The "Pay at the Office" plan has been adopted at Washington, and has proven very popular with the public. To date, the record of collections shows figures equal to previous months when handled by a collector.

E. H. McQuinn, manager of the A. T. & T. Company at Terre Haute was run down by a motorcycle May 7th. He escaped serious injury but was badly bruised.

Edna McConnell, toll operator at Bloomington, resigned and was married May 20th to Harry Grounds. Roxie Burks has been appointed toll operator.

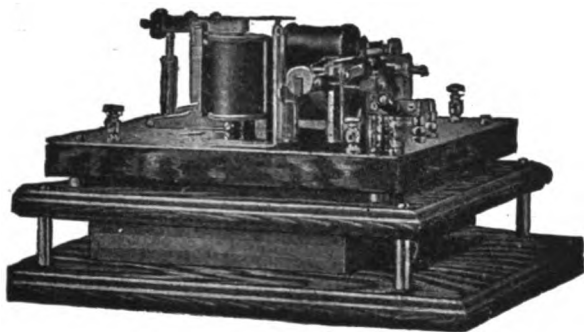
Cleveland Division.

W. K. Lawrence, Correspondent.

Cut'over at Bedford, Ohio

A "cut'over" is always an event of importance in telephone circles, and when it becomes necessary to "Ring out the old and ring in the new" there is some anxiety on the part of those responsible, until the new board is operating smoothly.

A successful cut'over made on the after-



THE STANDARD POLE CHANGER

has been making good for seventeen years. Affords the cheapest power—about 25c for each 100 subscribers. Very simple in construction—practically indestructible—no parts to wear out.

17,000 now in use.

No current drawn from dry cells except when ringing subscribers.

You run no risk—every pole changer guaranteed. The standard is one of many designs we manufacture. Tell us number of subscribers you have and we will send you details of the particular pole changer best adapted to your needs.

WARNER ELECTRIC CO., MUNCIE, IND.

Highest Grade of Inside and Outside TELEPHONE WIRE

Made in accordance with the specifications of the Western Electric Company or those of any other customer.

The Electric Cable Company

17 Battery Place, New York

Boston
Philadelphia

Chicago
St. Louis

Cleveland
San Francisco

Works: Bridgeport, Conn.

Sterling

Contractors' Barrow

Built to give and gives the kind of service which contractors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction. It will hold over twice the load of ordinary pan-shaped barrows and will oulast two similar style barrows of any other make.

Among its desirable features are:

Channel steel legs—16 gauge steel tray—angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.

Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.





SPRING PARTY, MAIN OFFICE, CLEVELAND.

noon of April 24th, gives the village of Bedford, Ohio, a new and more extensive central office equipment, in new quarters. Bedford is situated about eleven miles south of Cleveland and is one of the seven suburban exchanges operated by The Cleveland Telephone Company in Cuyahoga County.

The new equipment at Bedford consists of four sections of No. 9 type switchboard, 280 local line drops, 300 subscribers' multiple,

a chief operator's desk, a wire chief's testing desk, storage batteries, mercury arc rectifier for charging the batteries, a power board, etc., and will take care of the telephone growth of this community for some time to come. There are 476 stations working in this exchange at the present time, and six toll lines connecting with Cleveland take care of the 800 or more toll calls per day.

The switchboard, which is finished in ma-

hogany, is equipped with tarpaulins and fire protection apparatus on the premises, consists of chemical fire extinguishers, safety bucket tanks, sand pails and asbestos blankets.

The four operating employees at the Bedford exchange are proud of their new equipment and they have reason to be, for the installation is a very complete one for a village having only 1,700 population.

First Annual Spring Party

The first annual Spring party of The Cleveland Telephone Company, which was given Friday evening, April 24th, will be impressed on the minds of the 300 guests present, as one of the big successes of the year. Bare branches which had been cleverly transformed into heavily laden pink and white clusters of artificial bloom, were used to decorate the assembly room, and also made a very pretty stage setting for the various numbers on the evening's program.

Songs, dances and a one-act farce, entitled "A Considerable Courtship," gave the employees of the different city offices an opportunity to show their ability as vaudeville artists. It proved to be an all-star cast, for each number was A1 and thoroughly enjoyable. Miss Spencer, social secretary, arranged and supervised the entertainment—and this is a feature which is always considered a guarantee of a "good time" by the telephone girls.

Following the six acts on the program, refreshments were served, and then the floor was cleared. Both stage artists and audience joined in a general dance and good time.

Operating Employees Promoted to Outside Positions

There is a very widespread feeling among Cleveland concerns, who are extensive users of Bell service, that when reliable operators are required in their telephone departments, such employees can be secured from The Cleveland Telephone Company. This speaks well for the training that employees receive while in the service of the Bell Company, and a considerable number of its employees have profited through this well-earned reputation.

Former employees of the Cleveland com-

TELEPHONE WIRE

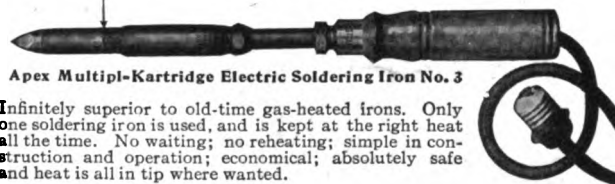
We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.



Write for FREE SAMPLE
Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

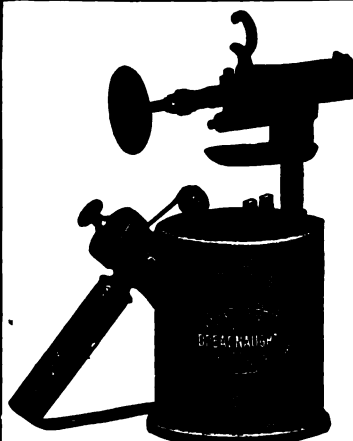
Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



The "Dreadnaught" Brazed Steel Gasoline Blow Torch

Made to deliver the Hottest Fire and to withstand the Hardest Knocks and has made good and stood the service test of the Telephone Companies.

No soft Solder to melt or crack.
Large Pump, quick starting
Burner.

Convenient Filler service.

Let us quote you.

**The P. Wall Mfg.
Supply Co.**
PITTSBURGH, PENNA.



SOIREE DANCE, EAST OFFICE, CLEVELAND.

pany are now ruling the destinies of telephone service at several of the principal hotels and newspapers offices, as well as at some of the larger mercantile houses. Recently Lillie Hrabak, former assistant chief operator at Main office, was placed in charge of the telephone service at the Cleveland Retail Credit Men's Company. A short time ago this company moved into new and larger quarters in the Engineer's building and has installed the very latest type of Bell equipment, especially arranged to take care of its rapidly growing business. As the various retail stores of the city, who are subscribers to the service of the Credit company, must secure practically all their information on the spur of the moment and over the telephone, it is readily seen that prompt service is extremely important.

In a letter addressed to their subscribers

asking for their coöperation, J. A. Richie, Secretary of The Cleveland Credit Men's Company, makes some suggestions that might be followed with profit by any company whose employees use the telephone in their daily work. He states in part:

"With the installation of new and up-to-date telephone equipment and expert supervision under the direction of The Cleveland Telephone Company, everything has been done at this end to provide the best service possible. No small part of the difficulty in the past has been due to unnecessary conversation and undue familiarity between the employees of some of the company subscribers and our own operators.

"In order to render you the service which you desire, and which you are entitled to, we urge your immediate coöperation in instructing those in your organization who make re-

quests for information to this office, to be as brief and business-like as possible. On our part, we shall appreciate it if you will promptly advise us of any faults in our service, and we, in turn, shall endeavor to correct them."

There will, no doubt, be many opportunities in the future for The Cleveland Telephone Company to place in desirable positions those employees who demonstrate in their present positions that they have ability and are ready to assume greater responsibilities.

Soiree Dance

As the guests were leaving the dance given by the Soiree Club of East office, on Tuesday night, April 28th, the committee members were observed in the ticket office "counting out their money." One glance at the numerous stacks of the "coin of the realm" was convincing proof that the "plano dance" was a grand success.

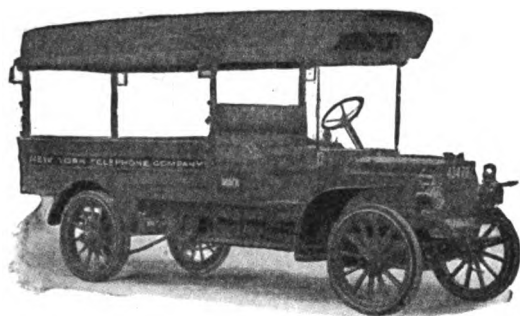
East office employees have been renting a piano for some time, but the same ethical reasons that apply to owning your own home also apply to owning your own piano. So they telephoned to their friends to come and dance the light fantastic on the above mentioned night at I. O. F. Hall on East Fifty-fifth street, and about 250 responded to the call. The night was extremely warm, which probably accounts for the disappearance of eighteen gallons of ice cream and ices.

There were no "wrong numbers" on the program, but the "cross-talk" in the hall would have appalled the most hardened "trouble shooter." It was enjoyable "cross-talk," however, and no "criticisms" were made. The piano belongs to East office from now on unless some one runs away with the money, and this is extremely improbable, as "supervision" at East office is good.

The picture taken at the height of the merriment tells the story far better than words. With a piano of their own it is expected that the musical ability of East office employees will soon become "standard."

Novel Afternoon Tea

A novel afternoon tea was given at East Office, Friday, April 16th from two to five, by a number of East supervisors, for the operators not on duty at that time. Covers were laid for twenty-five. The table was centered with greenery and favors attached to pink



ONE HUNDRED AND THIRTY - SIX

International Motor Co. Trucks of various sizes in the service of the Associated Bell Telephone Companies.

A total of a steady stream of orders for Supply Wagons, Post Hole Diggers and Powerful Winch Trucks for aerial construction and underground cable placing.

MACK



SAURER

INTERNATIONAL MOTOR COMPANY

West End Ave. and 64th Street

NEW YORK

Safest way to fasten fixtures to hollow walls



SEBCO TOGGLE BOLTS

Easy to use and quickly adjustable. Assure a neat and substantial job. No better method in existence for securely attaching telephone sets, meters, switches, lamp and electrical fixtures to marble, plaster walls, etc.

"Sold by Dealers Everywhere"

Send for samples and catalogue.

STAR EXPANSION BOLT CO.

147-149 Cedar St.

New York



AFTERNOON TEA AT EAST OFFICE, CLEVELAND.

and white streamers terminating at the chandelier, made a very pretty color scheme. The guests were also the caterers for the occasion, as the dainty and appetizing refreshments were made in their own homes. After the luncheon the girls played games and gave several vocal and instrumental selections in the recreation room.

Illinois Division

C. H. Rottger, Correspondent,
Springfield

Champaign Operator's Work Appreciated

The following letter was received by the Manager at Champaign from the editor of *The Daily Illini*, a newspaper published by the students of the University of Illinois:

April 20, 1914.

Local Manager Bell Telephone Company, Champaign, Illinois.

My Dear Sir: I wish to call to your attention the kindness and courtesy of one of your employees. Last Thursday night, *The Daily Illini* had occasion to call Eureka, Illinois, over long distance. The call was a difficult one and required a good deal of time and patience from your long-distance operator. The young lady who attended to this succeeded in getting for us a valuable story. I wish you to know that we appreciate very much such service as this and I wish you would thank the operator for her courteous attention to this matter.

Very truly yours,
H. P. DAUGHERTY.

Alton District

Walter Straube, collector at Alton, has resigned. He is succeeded by Tony Crivello. Margaret Slaven, local operator at Alton, Ill., sprung a very clever surprise on the operating force, April 15th, when her marriage to Edward Yarby took place. They were married at three o'clock Wednesday afternoon by Reverend Father Tarrant, of the cathedral, in the parlors of the bishop's residence. A wedding supper was served at the home of the groom, where they intend to make their future home.

A novelty shower was given Mr. and Mrs. Edward Yarby at their residence on W. Brown street on the evening of April 18th. About forty were present, and the young couple received many beautiful presents. The operators presented the bride with a beautiful cut glass sugar and cream set. Musical and vocal solos furnished the evening's entertainment. Refreshments were served and hearty congratulations were extended by all present.

Nellie Bennett resigned her position as local operator April 1st, to join her parents, who recently moved to a dairy farm near Alton.

Centralia District

Cairo is rejoicing within the security of the high walls around the city to keep out the rivers. This time last year the women and children, operators included, had fled. The men were doing patrol duty and preparing for the worst. The exchange was in the charge of service inspectors as line operators, linemen as local operators and the traffic chief, who remained, was driven here and there at the command of all, anxious committeemen, wives calling their husbands and vice versa. The employees are thankful that the wall was not put to the test this year as it has only been completed a

short time. By next year, safety will be assured and there will be no necessity of going back to the early days when the exchange was operated by men instead of women.

A private branch exchange has just been installed for The McKnight-Keaton grocery company at Cairo. It consists of one trunk and six stations.

Lillian Maylard, local operator at Cairo, took her vacation the latter part of April. She spent it in the country.

Mabel Gibson, supervisor at Cairo, expects to go to Jackson, Tenn., on her vacation.

G. V. Gould has been appointed Manager at Cairo. Mr. Gould began his telephone career in Gas City, Ind., as manager of a small exchange, and after having worked in different capacities for the Rocky Mountain Bell, and the Ontario and Nyssa organization at Fayette, Idaho, he joined the ranks of the Central Union Telephone Company, serving as chief clerk to the district superintendent at Anderson, and Indianapolis, Ind., and as plant chief at Elwood, Ind., after which he was transferred to Cairo.

Nannie Suesberry, traffic chief, and Lois Claybourn, supervisor, of Mt. Vernon, visited the Centralia Exchange on March 29th. They were entertained at dinner by Alma Highshoe, district instructor, and Addie Pfeiffer, traffic chief.

Champaign District

A No. 4 private branch exchange, consisting of two trunks and fifteen stations, has been installed for the W. Lewis & Company, department store.

F. M. Sidenstricker, clerk in the plant department, resigned May 1st to take a position with the Bonner Manufacturing Company.

George A. Pankey, formerly collector at Peoria, has been transferred to Champaign.

NATIONAL

Double Tube Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

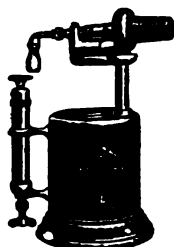
No. 20 Turner Torch

The Lineman's Friend in windy weather. Delivers the hottest flame of any single jet torch made.

Order one now

The Turner Brass Works

Dept. T, Sycamore, Ill.



No. 20. \$4.25 net.

RELIABLE COPPER —AND— IRON WIRE CONNECTORS

For Telephone and Electric Wires

All sizes from No. 0000 to No. 19 gauge
Split and Combination sizes

Write for Samples and Prices

RELIABLE ELECTRIC CO., CHICAGO

Western Electric TOOLS

Are Standard for Economical Construction
THE LINE IS COMPLETE
Send to our nearest house for bulletin.

WESTERN ELECTRIC COMPANY
Chicago, Milwaukee, Detroit
Cleveland, Minneapolis

succeeding H. M. Horn, who has taken a position in Decatur.

Foreman Carl Meneely and assistant have renewed a number of jacks on the Campaign local board.

Decatur District

Miss O'Neill has resumed her duties after an illness of two months.

Lucy Mooney, who has been in poor health for some time, has resigned, and is succeeded by Edith Quickell.

The loyalty of the operating force was particularly demonstrated on April 7th, when the Opera House Block was entirely destroyed by fire, which started about 4.30 a. m. Within a very short time after the general alarm was sounded, about ten of the operating force reported for duty voluntarily, no notice having been sent them that they were needed. This certainly shows the right spirit, and our girls should have the credit they deserve for such loyal consideration of the company's interests. They were certainly badly needed, as in addition to the fire, there was a local election of special importance, which made the operating load very heavy.

Galesburg District

About forty of Viva Cowell's friends met at her home at 917 Monroe street on Wednesday evening, May 6th, in honor of her eighteenth birthday. The party was a surprise to Miss Cowell. Music and games made up the entertainment for the evening, after which light refreshments of ice cream and cake were served. All reported a most enjoyable time. Nettie Allen of Monmouth was an out-of-town guest.

The Bell Telephone Association held its regular semi-monthly meeting, April 14th. Mr. Fisher read a paper entitled "Construction and Operation of Protectors." Mr. Gilbert then read a good paper on "Fuses, Their Construction and Operation." Mr. Aldrich followed with a very good and instructive paper on "Cable Grounds for Protection and Bonding." Mr. Easton gave a short talk on "Inside Wire, Kinds, Insulation, Resistance, Etc." This was followed by a short, but to the point, paper by Mr. Irwin on "Wire Fast-

eners." Mr. Melin read a paper on "Insulating Sub-station Wiring." This was a very good paper. Discussion followed this about wiring. Mr. Wilcox then gave a good talk on "Wire Runs" which was followed by Mr. Chittenden on "Mounting Protectors." Both were very good. Mr. Wood then explained very clearly the proper way to connect up extension telephones to main sets. Special attention was given to connecting desk sets to wall telephones where no bell was required. This was followed by a talk by Mr. Davis on "Connecting Party-line Taps, Both Inside and Outside Buildings." He brought out the point that all taps not using test connectors must be well soldered and tapped. Mr. Pickering then read a very good and instructive paper on "Conduct of Installer While on Subscriber's Premises." This is a very delicate subject and brought forth some discussion as to installer's appearance. A discussion about tree trimming followed and Mr. Conaty asked that all cases where trees need trimming to clear wires properly be reported so that he might take the matter up with the city forester. After adjournment the entertainment committee served ice cream, cake and cigars.

Garnett Shrader, chief operator at Bushnell, was a caller at the Galesburg exchange recently.

C. L. Grimm has taken a position as commercial agent at Galesburg.

The Alpha Mutual Telephone Company has purchased the telephone interests of E. S. Cox, and will build an entire new exchange at Alpha.

La Salle District

Collecting by mail is proving successful.

We are delivering amongst our subscribers, little pamphlets, "Talking over the Telephone," and find that they prove very beneficial.

Contracts have been secured from Bent Brothers at Oglesby, for a private branch exchange and twenty-five stations.

Jennie Koskosky, local operator, spent a week with friends in Omaha, Neb.

Mr. Scott took the day operators for a ride to Princeton, in his limousine. They visited the Princeton exchange while there.

Paris District

Lucille Green, toll operator, of Decatur, visited the Paris exchange.

Mabel Young has resigned her position as substitute operator.

Peoria District

Anna George entertained the girls of the Peoria commercial department at her home on North Jefferson avenue, Friday, May 8th. The entertainment was in the form of a linen shower, and a fishing pond had been arranged, where all were successful with the fishing line. Lulu Olson drew in the big haul, and was agreeably surprised at the pretty pieces of linen she received. Hearts and Cupids were in evidence, both in place cards and decorations.

Mrs. Julia Root entertained the Peoria girls of the Central Union Telephone Company in her home, 262 East Armstrong avenue, giving a cut-glass shower for Catherine Carroll, who was married April 21st to Dominic Reagan. The home was very prettily decorated with Cupids and hearts, and the evening passed all too quickly with the program of games and music arranged by the hostess. Each guest brought some attractive piece of cut-glass with her for the bride-elect.

Catherine Carroll, local supervisor at Peoria, resigned April 16th, and was married on April 21st to Dominic Reagan. The wedding was very quiet on account of the recent death of the bride's father.

Quincy District

The Quincy traffic department will give the annual moonlight excursion on the Steamer Sidney, on June 10th, and a large crowd is expected.

Della Bresser, information operator at Quincy, has resigned, to be married. She has been with the Central Union Telephone Company for the past eight years. The operators gave her a miscellaneous shower, at which she received many beautiful and useful gifts.

The traffic department people have fixed up the fine colonial porch on the Quincy exchange building for a fresh-air room, decorating the entire outside with flower boxes, using the money made on their last winter's

dances to make a pleasant retreat for themselves among the flowers and plants.

Leaton Irwin, of the Irwin Paper Company, sent the employees of the telephone company a fine barrel of Ben Davis apples, from his farm, six miles east of Quincy. They were certainly appreciated. Mr. Irwin is one of our best patrons, having seven business telephones and three farm telephones.

Edward Flowers, plant chief at Quincy, was painfully burned by boiling beeswax which took fire. Mr. Flowers tried to smother the flames with a blanket and the wax blew into his face and arms, making bad burns wherever it touched.

Rockford District

The Western Electric Company is now installing additional equipment in the Central office. The new apparatus includes three subscribers' sections, with 2,800 subscribers' multiple; eighty multiple through ten subscribers' jacks; 200 subscribers' multiple through three subscribers' sections; 1,040 regular subscribers' answering jacks; 860 subscribers' primary answering jacks, and 720 subscribers' multiple answering jacks; three board trunk sections and one No. 8 chief operator's desk. This work is to be completed about the middle of August, and is the start of the second unit to be known as "Forest" exchange. The Western Electric Company has a force of twenty men, under Foreman C. O. Marsh, at work in the exchange at the present time.

Foreman J. A. Prout is completing an estimate covering cable extensions in various parts of the city, and the rebuilding of various leads to dismantle open wire. At the present rate of growth of the Rockford exchange it will be necessary to provide an additional estimate in the near future.

Fred Prout and Lloyd Lange have been assigned positions in the construction department under Foreman Prout.

Foreman Prout has purchased a new five-passenger Overland touring car, 1914 model, to enable him to cover the work being done here to the best advantage.

Plans are being perfected for a summer of outings and outdoor sports, by the various members of the traffic department at Rockford, chief among the plans being the organization of a tennis club. A great deal of interest and enthusiasm are being displayed.

Leone Martel, toll operator at Rockford, resigned April 30th. She will make her home in Waterville, Maine.

Members of the commercial department at Rockford are planning a series of picnics and outings to be held at regular intervals during the summer months.

Mrs. W. S. Beane entertained members of the commercial department at a moonlight lawn party at her home east of the city. The very spacious lawn afforded ample room for the games and amusements which had been arranged by the hostess. Mrs. Beane or as we generally call her, "Our Chaperon," proved herself a very charming entertainer, and at a late hour the party boarded the car for their homes in the city.

Rock Island District

An estimate covering aerial cable extension at East Moline has been started under the supervision of Foreman Linaberry.

District Plant Chief E. Lewis Mitchell has moved his office from the Moline exchange to new quarters in the New Rock Island building.

An estimate covering cable and outside work has been approved, and work has been started by Foreman Owens.

Roy J. Lampmann, who has been acting as testman at Moline, has accepted a clerical position in the district plant chief's office at Rock Island.

An estimate for the installation of the new equipment for the Rock Island building has been approved. Work will begin in the near future.

An estimate covering the rebuilding of the Rock Island-Peoria toll lead between Rock Island and Galva has been approved and work will probably be started soon.

The underground extension to, and the cabling of the New Lawrence building at Sterling was completed during April, under the supervision of Plant Chief Ruark. This building was equipped with individual conduit outlets for each room by Mr. Lawrence, owner of the building, no moulding or open wire being required. The building consists of five stories and basement with about fifty offices.

An estimate covering two additional sections, 1,000 multiple, and 1,080 answering jacks at the Moline exchange, was completed during April by the Western Electric Company's installer, R. H. Schutte.

A No. 2 private branch exchange of one trunk and six stations has been installed in the residence of G. W. Mixter at Rock Island. An underground service lead was required. Work was done by installer "Pinky" Williamson.

Springfield District

Mrs. H. Peek, local supervisor, who has been confined to her home by illness is still unable to resume her duties.

Miss A. Keefe, local supervisor, has taken a position as pay station attendant. She is succeeded by Miss P. Bay, local operator.

Miss C. Connell, local operator, has taken a position as private branch exchange operator at the Sattley Plow Company.

The H. G. L. girls of the Central Union Telephone Company gave an Indian Snake Dance in the Gymnasium Exhibition of the Y. W. C. A. on May 1st, at the State Arsenal. They, also, gave a farewell supper for Miss Hoffman, extension secretary of the Y. W. C. A., who left for her home in Kansas City, with the best wishes of all her associates.

Ruby Winklehake, formerly toll operator, has resigned. She is succeeded by Sue Plunkett.

Noretta Scott, toll operator, who is to be married soon, resigned. Florence Adams will succeed her as toll operator.

May Downing, toll operator, spent her vacation in Danville.

Elizabeth Mallon, toll operator, has returned from her visit to Chicago.

Sadie Hunter, pay station attendant in the commercial department, has taken a position in the accounting department, and is succeeded by Josephine Keefe, formerly local supervisor.

Laura Bullough, formerly cashier at Springfield, was married to Ray Blouser on April 26th.

C. H. Rottger, general manager, has moved his offices from the Central office building to the new Relsch building.

The second floor of the Central office is being remodeled to accommodate the increased force which the accounting department will put on when the accounts, now being handled in the Chicago office are taken over.

N. R. Harrison, district traffic chief, has moved his office to the fourth floor of the Ridgely Bank building.

George R. Leigh, commercial agent, who has been ill for some time, has reported for duty.

On April 10th a fire occurred at Edinburg,

Ill., which is in the territory of the Christian County Telephone Company, a connecting company in the Springfield district. The *Illinois State Register* of April 11th, in commenting on the fire, said: "While the conflagration raged within half a block of the telephone office in Edinburg to-night, Miss Lora Rape, the night operator, heroically stuck to her post and let the outside world know of the fate of the town, while the flames rapidly crept toward her office. Manager J. F. Buckles of the telephone company saved all but three of his 'phones that were in the fire district."

Michigan Division

David H. Dodge, Correspondent,
Detroit

Telephone Society of Michigan

The new officers of the society were installed at the meeting of April 30th. Martin Ewald being the new president. He conducted the meeting as if to the manner born and to the satisfaction of everybody. The paper of the evening was by W. A. Spencer, traffic superintendent of the Michigan State Telephone Company, on "Benefits Derived From Slow Repeating." A report of Mr. Spencer's paper appears elsewhere in this issue. Short speeches were made by C. G. Sharpe, plant superintendent, and by C. S. Slack, Detroit district manager.

W. E. Dawson, former president of the society, retires from the chair after serving the society for nearly three terms. His work has been much appreciated by the members, and perhaps this is as good a place as any to say that his uniform courtesy, his welcome to strangers, and his gentleness, have made a record of his tenure which it will be hard to beat.

Slow Repeating of Numbers in Detroit

Traffic Superintendent W. A. Spencer lectured April 30th before the Telephone Society of Michigan on the advantages of slow repeating of numbers by operators. Graphic charts, showing the service given on a portion of the busy-hour load under three different kinds of operating, were shown. The same load was used in all three cases, that is, the same calls falling at the same time before the same operators.

On the first chart the operators were assumed to work carefully but to pay more attention to signals on their own board than to those on neighboring positions. In other words, the operators were careful in their repeating, and accurate, but their team work was weak. The average answer under these conditions was ten seconds and fifty per cent. of the answers were over ten seconds.

The second chart showed the operators working carefully; that is to say, repeating slowly and doing their work accurately and at the same time doing good team work. The results of this chart showed a 3.5 second average answer and no calls answered over ten seconds.

The third chart showed good team work and careless repeating, crowding call circuits, etc., on ten per cent. of the calls. This chart showed that even with perfect team work a small amount of fast talking and crowding brought the average answer up to eight seconds, and, in addition, caused four per cent. operating errors, wrong numbers, cut-offs, etc.

The showing in the third chart Mr. Spencer considers was the poorest of the three, for

The "French" FOLDING DOOR Telephone Booth

(Patent Pending)

MAINTENANCE: The FOLDING DOOR does not require the use of tracks in the floor, and, consequently, eliminates the main item of trouble experienced with the booths equipped with sliding doors. This is one of the many advantages of the FOLDING DOOR booth.

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

DISTRIBUTORS:

Western Electric Company

Houses in all principal cities



Door Open



Door Closed

while the speed of answer was greater, the percentage of error was likewise greater, which is particularly undesirable in a city like Detroit, where the calling rate per subscriber is unusually high. A subscriber is prone to judge the service, Mr. Spencer pointed out, by the number of errors rather than the greater proportion of calls correctly handled, even if the great number of calls he uses brings this average of correctness very high.

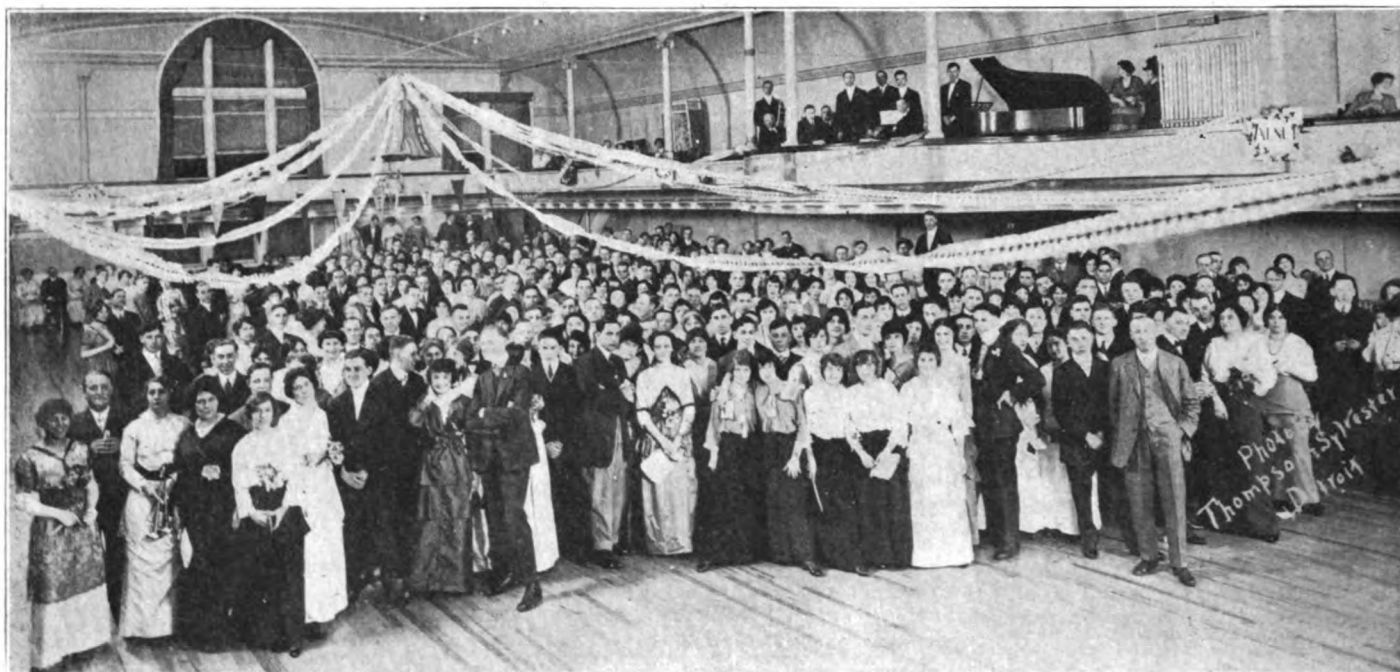
Mr. Spencer went on to show that the slow passing and repeating of numbers in Detroit

damage done to a fifty-pair exchange cable put out of service about sixty-five subscribers. There was also some local trouble at Lansing, about 400 subscribers being temporarily out of service.

Kalamazoo district reports rather more trouble. The toll lines radiating from every direction out of Kalamazoo city, except to the north, suffered from the wind and the lightning; 700 local subscribers were also affected. A 400-pair cable was put out of business on account of the overflow of rain flooding the conduits. District Manager E. P.

cards were arranged representing the name of each individual office. These were illuminated with small electric lights and a wreath of roses was garlanded around the cards, from which fluttered blue and white streamers to the center of the hall, where hung a huge bluebell on which was printed the names of Main and Cherry. Inside the bell were electric lights.

As the Main exchange scored the great honor of being first in the standing of the offices for April with a 100 average, a very pretty pennant was awarded to the office.



MAIN AND CHERRY DANCING PARTY. DETROIT.

had, in the past three years, reduced the percentage of errors from 4.5 to 1.3 per cent., while in the same time answers over ten seconds had been reduced from 11 to 2.8 per cent.

Severe Rain Storm in Michigan

A thirty-six hour downpour of rain, the heaviest ever recorded for May, took place May 11th, 12th and 13th. The rain-fall in Detroit in the first two days alone was estimated to be nearly 2,300,000,000 gallons of water. There has been no abnormal damage done to telephone plant in Detroit city, but in the lower part of the state some inconvenience was felt by subscribers and toll users. The area worst affected comprises the counties of Kalamazoo, Ingham, St. Joseph, Calhoun, Branch, Jackson, Hillsdale and the eastern edge of Lenawee. The first and last named counties especially suffered.

Owing to the ever watchful care of the Michigan plant department, damage from rain and lightning has been unusually low. The violence of the storm being taken into consideration. Some cases of trouble here and there, however, may be specified.

In the Lansing district, at Lake Odessa,

Platt says that on Monday, May 11th, the rain-fall at Kalamazoo was 5.25 inches. This is some precipitation, for the whole summer rain-fall hereabouts seldom amounts to more than 6.25 inches.

A 400-pair exchange cable at Pontiac was damaged by the rain. This was apparently the only trouble of any consequence which happened in the Eastern District.

Around Jackson there was plenty of trouble. Battle Creek, Hillsdale and Albion had 400-pair, 200-pair and fifty-pair cables, respectively, put out of service. A toll lead between Jackson and Hillsdale was torn down after the lightning shattered a pole.

Main and Cherry Dancing Party

Guests of the Main and Cherry girls were ready to admit that the May Day dancing party given at Strasburg's Dancing Academy on the evening of May 6th was the most successful ever given by the telephone girls of Detroit.

The hall was very beautifully decorated in the blue-bell colors of the Michigan State Telephone Company and, out of courtesy to the sister offices in Detroit, large placard

Cherry office was a close second and also had a new pennant for April. These pennants were given prominent places along with the others and added color to the decorations of the hall.

In appreciation of the good service rendered by the Cedar office one of the guests, Dr. Seymour Robb, pinned a beautiful bouquet on the placard bearing the name of Cedar. The program of dances was unique, the names of the months being used for the numbers and different features appropriate to the month were used.

Everybody was delighted with the program and features and credit is due to E. C. Laskey, traffic chief of the Main and Cherry offices who arranged everything for the enjoyment of the guests.

The Main and Cherry girls, through the BELL TELEPHONE NEWS, wish to tender a vote of thanks to Mr. Laskey for all his earnest and hard work, to which is owed the great success of the party. They also wish to thank the following floor committee for their efforts: W. A. Spencer, M. C. Glass, W. E. Dawson and C. J. Murray. Arrangements are being made for a moonlight to be given July 14th, the proceeds of this dance to be used for it.

Safety First



Electricians' GLOVES

Tested to 4,000 and 10,000 volts before leaving our factory.

Made of Fine Para Rubber. The I n e m e n prize them. Special gloves made and tested to higher voltages. Write for prices and details.

CANTON RUBBER CO.
Canton Ohio

NATIONAL PINS and BRACKETS

SUPPORT THE WIRES from COAST to COAST

WE make EVERYTHING in the line of

WOODEN INSULATOR PINS AND BRACKETS

Order through the WESTERN ELECTRIC CO. BRANCHES or any of the LARGE JOBBERS

NATIONAL PIN & BRACKET CO.

MADISON, INDIANA

East-West-Cedar-Hickory-Ridge Operators' Dance

The girls in Mr. Parent's five offices were unanimous in their decision that the dance which he gave April 29th, at Strasburg's Academy, was the most enjoyable of the many numerous parties that he has given for them. Each office was well represented, and there were many novel and pleasing features. A solo by Leora Stevens, chief operator of the Walnut office, was greatly appreciated. The grand march, led by E. C. Laskey, traffic

The Second A division, Walnut office, Supervisor Irene Warner, were the winners for April, and attended the Detroit Theater, where they enjoyed seeing "The Sunshine Girls."

The Second B evening division, Walnut office, won the contest for April. Supervisor Edith Low and the girls saw "The Marriage Market" at the Garrick Theater.

Detroit District

The Commercial Credit Company of Detroit, which has an order table with eight

The speakers were Traffic Superintendent W. A. Spencer, Traffic Chief F. L. Johnson, and Chief Operator Mae Durkin. After the meeting a little entertainment was given by some of the operators. Ice cream and cake were served and the girls enjoyed dancing amid decorations of carnations presented to Mr. Johnson by the operators.

The Hemlock chief operator, supervisors and senior operators were entertained at a farewell party given by Mabel Woehl in honor of her sister.

Mattie Felton and Emily Kellog have been



DANCING PARTY FOR EAST, WEST, CEDAR, HICKORY AND RIDGE OPERATORS, DETROIT.

manager of the Main and Cherry offices, and Mrs. Parent, was another enjoyable feature of the party. Then a picture was taken. The evening, which had given so much pleasure to all present, was brought to a close by a rye waltz, especially requested by Eleanor Chambers, chief operator of the Hickory office.

Winning Contests at Detroit

Kate Sharpe, supervisor in the Fourth A division, Grand office, which won the contest for March, enjoyed a theater party with her operators at the Temple Theater, followed by a supper at the Hotel Tuller on the evening of May 1st. The party, chaperoned by Chief Operator Mae Thompson, consisted of the following operators: Kate Sharpe, supervisor; Nettie Cotter, Luella Demmons, Henrietta Gilbert, Blanche Chevillot, Pearl Burns, Emily McLaughlin, Sade Clayton, Irene Fellows and Meta Brown.

The Third Main A division won the April contest. Helen Kelfer, supervisor, and the girls are to have a theater party.

The Fourth Cherry A division, Supervisor Lydia Bloom, were the winners for April.

The First Cherry B division, Supervisor Maude Meredith, won the April contest. They are planning a theater party.

positions has a method of initiating the clerks at this table, all young men, which might be followed with advantage by other subscribers of this form of telephone equipment. No clerk of the Commercial Credit Company is allowed to sit at the order table until he has been through the Main and Cherry exchanges in the Telephone Building, and has examined with as much profit as can be obtained in this way the methods of the regular telephone operator. He is also taken to the Operators School and shown how we train our "centrals." Not only does this inspection give him a closer insight into the nature of his own work at the order table, but it prevents his feeling undue impatience with the operator when his call from the table may not be answered within the minimum wait. The Commercial Credit Company is soon to add four positions to its equipment.

Building activities in Detroit nearly made a record during the month of April, 1914. There were 822 permits issued, which is the greatest in a single month, except for May, 1913, in the history of the city. This should indicate an increase in the percentage of residence telephones in the near future, for the majority of the permits were for dwellings of from five to eight rooms.

An operators' meeting was held at the Hemlock office Monday evening, May 4th.

promoted from operators to senior operators on the Hemlock A board, and Mary Ryan from operator to senior operator on the B board.

The Hemlock First Day A section won the premium for the month of March and enjoyed a play at the Temple Theater. They were chaperoned by Miss Durkin.

The Hemlock Second Day B section were also the prize winners and saw "The Rejuvenation of Aunt Mary" at the Lyceum.

Gurgles of delight were heard to issue from the throats of Mabel Weston, Gladys Fancher, Effie Brown and Grace Remo, clerks and stenographers in the office of the commercial superintendent, as soon as pages 13 and 14 of the May BELL TELEPHONE NEWS were spread open to view. These are the pages which held the first installment of the Fashions for Girls, and the new idea tickled the young ladies' most to death. The impartial observer, however, should state that not all of the stenographers were equally excited. James H. Swale and Bernard Engländer remained calm and impassive throughout the scene.

Plant Superintendent C. G. Sharpe wishes to thank, through BELL TELEPHONE NEWS, all the employees of his department for their good work in preparing the toll line inspection reports. The work on the toll lines last fall

Partridge & Anderson
Designers
Electrotypers
Engravers
Stereotypers
MADE BY PARTRIDGE & ANDERSON CO.
PHONES MAIN 198 All Departments
100-16 N. Fifth Ave. Chicago
AUTOMATIC 31-757 31-758

ELECTROSE
TRADE MARK
INSULATION
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES.

INSULATORS 1,000 TO 1,000,000 VOLTS

No. 2 No. 1 No. 7

No. 505 New No. 10 Old No. 10

LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. CO.
60-72 Washington St. BROOKLYN, N. Y.
62-76 Front Street
ALSO FOR SALE BY
Western Electric Company
NEW YORK AND BRANCHES

No. 14 No. 562

and winter has been well done, and it is thought that even further improvement can be made in the second overhauling of the lines.

Plant Superintendent J. W. Cherry of the Central Union Telephone Company at Columbus, Ohio, and K. D. Schaffer, plant chief of the Toledo district, visited the plant department at Detroit April 30th, when plant matters of interest were discussed. The visitors were taken about the city in Plant Superintendent Sharpe's new machine—during which trip they rendered valuable first aid in the changing of a tire.

The new garage and shop on Winder street in Detroit is now in operation. With the arrival of the ten new Reo auto trucks, which are to replace horse-drawn outfits, and with the six half-ton Federal trucks already owned by the Company and hitherto housed by the Thompson Auto Company, the garage will be a busy place. A picture of the Reo machines will ere long grace a page of the News.

Regrets are felt at the continued illness of John C. Walsh, toll line engineer. His associates in the engineering department, as well as every other employe in the building who has any relations with Mr. Walsh, are sincerely hoping that he may recover.

Lauretta Barker, Grand office, surprised many of her friends by announcing that she was quietly married to Fred Morris on Saturday evening, April 11th, at the home of her parents. The best wishes of the Grand girls are extended to the young couple.

Louise Weiderholdt was quietly married to Albert Kruse of Buffalo, N. Y. Miss Weiderholdt has been with the company for the past three years, and at the time of her resignation was a supervisor at the Cherry office. Miss Weiderholdt has the good wishes of her co-workers. The young couple will make their home in Buffalo.

Ethel Chipps, Main office, was quietly married to Vern French. Miss Chipps has been at the Main office for the past three years, and leaves with the best wishes of all for a very happy future.

Wednesday evening, April 22d, Margaret Murphy, Pearl Burns, Martha Schmult and Edna Prue of the Grand office entertained May Murphy, Mae Thompson, Emily McLaughlin and Gertrude Prue at a dinner at the Hotel Toller and a theater party at the Detroit Opera House, where they enjoyed "The Marriage Market."

Mrs. Bevins, formerly Helen Perkins, of the

Cedar office, was pleasantly surprised by a number of the girls from the Cedar office at her home, 2276 West Jefferson avenue. The evening was spent in vocal and instrumental selections and light refreshments were served.

The fourth evening section of the Cadillac office was the winner of the last contest. Dorothy Poyhonen, supervisor, and the following operators, L. Sage, L. Tallman, D. Belhorn, S. Barry, L. Shriner, G. Harder and L. Schubring, spent a pleasant evening at the Temple Theater, with Lydia Poyhonen, supervisor, as chaperon. The girls presented Miss Hoffman, day chief, and Miss Wooliver, evening chief, with a box of MacDairmid's, and also enjoyed several boxes themselves at the theater.

Lorraine Robertson, Cadillac office, has been promoted from senior operator to evening supervisor.

The Grand and Cadillac girls will give a moonlight excursion on Thursday, June 1st. Arrangements have been made to secure the Steamer *Tashmoo*, one of the finest of Detroit's sidewheel excursion fleet. The *Tashmoo* has a capacity of 3,500 passengers. The boat will run to Sugar Island Park, which is equipped with an excellent dancing pavilion. Finzel's Orchestra has provided an excellent dancing program for the occasion and, for additional entertainment, Harold Jarvis, the famous tenor, has been engaged. This excursion is open to all other offices and it is hoped that a good representation will be present from all offices in the Detroit district. The boat will depart from wharf, foot of Griswold street, at 7:45 p. m. Be sure not to miss this, and be sure to bring your friends. Remember, this is the first "moonlight" given by any of the offices, and will be a "hummer."

Eastern District

James McGarry of the Ann Arbor plant department, who was injured February 21st, returned to work April 13th.

Miss Inglis, appointed by Luella Burton, the secretary of the State Commission of Labor, to make a report on the female employes of the American Telephone and Telegraph Company, has completed her work at the Ann Arbor exchange and states that a favorable report is being prepared.

T. L. Stevens has been appointed manager at Royal Oak, succeeding J. M. Kelly.

Albert Hall has been appointed manager at Rochester, succeeding F. E. Cressman, now manager at Oxford.

Grand Rapids District

Nellie Currott, toll supervisor, and Alice Barrett, toll operator, both at the Grand Rapids office, resigned April 15th, to enter St. Mary's Training School for Nurses. They were entertained at the home of Josephine Timmers, the evening being spent with music and games. The latest steps in dancing were demonstrated by Clara Howe and Cora Kingsbury, after which a cafeteria lunch was served.

Blanch Martin, formerly stenographer in the office of the district traffic chief, Grand Rapids, but now stenographer in the office of the district manager at Petoskey, visited Grand Rapids the week of April 20th.

Blanche Berry, of the Grand Rapids main office, was promoted from day operator to relief supervisor.

Irene Fitzgerald, day information operator, was promoted to day supervisor.

G. W. Johnson, traffic chief, spent a few days with his sister in Ft. Wayne, Ind.

Oliver C. Bath has been appointed toll station manager at Evart.

Jackson District

Several of the factories at Jackson which have been idle for some months are again starting operations, and a marked increase in toll receipts shows improvement in business conditions.

Chairman Lawton T. Hemans of the Michigan Railroad Commission delivered an interesting address at a meeting of Jackson business men April 8th, and, as a newspaper report of it stated, "exploded some of the pet theories of his audience." He made the statement that Jackson did not need two telephone companies. He also advocated an indeterminate franchise instead of one written for thirty years. The discussion which followed Mr. Hemans' talk was largely related to the telephone situation in Jackson. Among the questions asked were the following: "If a combination of the two companies here took place, is it probable that a rate increase would result?" Mr. Hemans answered that it was probable and likely, as the increased number of subscribers would cause an increased expense, etc., and gave a clear explanation of the things involved, such



OUR BUSINESS is to perfect and manufacture Tools and Devices to save TIME, MONEY and LABOR in the construction of Telephone Lines.

The Western Electric Company and all leading Jobbers handle them because they make for ECONOMY. Why don't you specify them?

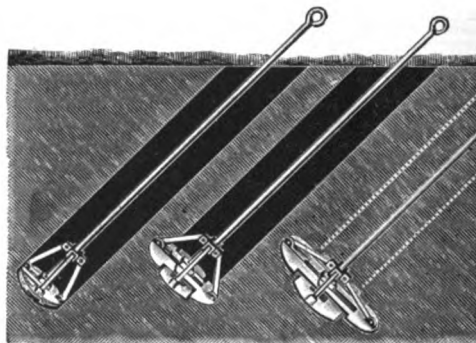
OSHKOSH MFG. COMPANY
OSHKOSH, WIS.

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies have also made a like mistake, for there is but one best Anchor.

THE EVERSTICK ANCHOR CO.

ST. LOUIS, MO.

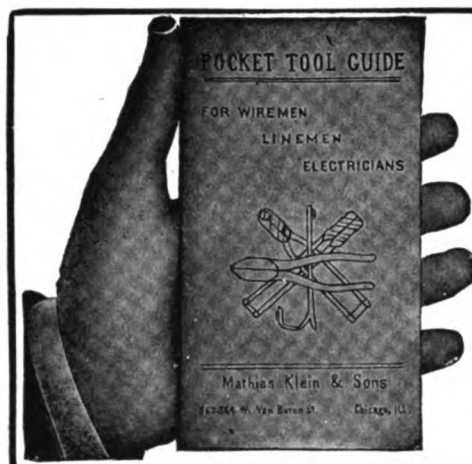


1

2

3

Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.



Yours for the Asking!

WRITE FOR A COPY

Mailed FREE on request.

It contains a lot of information about tools of all kinds. You'll find it handy. We'll gladly send you a copy without charge.

Mathias Klein & Sons

Canal Sta. 62 Chicago

Phone Wabash 628



No. 1 Fire Pot

SAFETY FIRST

In these days, when greater thought is being given to prevent accident and injury, the words "Safety First" are frequently used. With C. & L. Fire Pots and Torches, the makers for more than twenty-five years have had this motto before them, and have striven to make the best Fire Pots and Torches on the American market. The very best materials are used, and the stock is made by experts skilled in this line of work. As a result, C. & L. Fire Pots and Torches are recognized as the safest, most durable, and best, and are the Standard of Quality wherever gasoline is used.

Your jobber will supply at factory price. Send for Catalog—it's free.

CLAYTON & LAMBERT MFG. CO.
DETROIT, MICH., U. S. A.

as added traffic, added switchboard expense, added outside expense, and so forth. As an example of the cost of telephone service in large cities he cited the case of Detroit, with its intricate trunking plant.

Contracts covering private branch exchange systems were secured by Jackson Manager Stevens during the past month from the Briscoe Motor Company and the Crown Paper and Bag Company, each for one trunk and five terminals.

The Commonwealth Power Company has added extensively to its exchange system during the past month. At present this company uses eight trunks and about fifty terminals and expects to add several more terminals shortly.

The Michigan United Traction Company has moved into its new offices, which necessitated the moving of its private branch exchange system, and the consolidating of its commercial dispatching board with a board leased from this Company. This arrangement is a great convenience for the operator, and improves the service furnished the Michigan United Traction Company.

Harry Hawley, night chief at Jackson, has been promoted to be manager of the Union City exchange. Mr. Hawley has been an employee of the company at Jackson about two years, starting as stock man, then test man, and later night wire-chief. He is quite capable of fulfilling the duties of manager at Union City.

Charles A. Pierce, formerly plant inspector under District Plant Chief Hurlbut, has taken the position of night wire-chief, which position was made vacant by the promotion of Mr. Hawley.

Georgia Northrup has accepted the position of stenographer at the Jackson exchange, on account of the resignation of Alice Perkins.

Material is arriving for reconstructing and re-routing toll line between Jackson, Brooklyn, Omsted, Cement City and Clarks Lake. The constructing of this line will be greatly appreciated.

On the evening of April 16th, the traffic department of the Jackson office enjoyed a "pot-luck" supper in the rest-room of the building. Covers were laid for thirty-five, and the place cards were artistic white bells. The decorations were of dark blue and white. The guests of honor were W. A. Spencer and L. J. Walley of Detroit and A. W. Leet and W. L. Stevens of the Jackson office. Appropriate speeches were made by the gentlemen present. The evening was concluded by a theater party. Each time a "get-together" party is held every operator feels she has had a better time than the one previous.

Tuesday evening, April 21st, the Jackson "Bell" Basket Ball Team was defeated by the Jackson High School Girls, in the gymnasium of the local Y. W. C. A. It was the first game open to spectators which the Bell girls have played.

Wednesday, April 29th, the Bell Team defeated the Memorial Athletic Girls by a score of 21-13. This was the final game of the season.

May 6th, Miss Shorr was hostess at a 7 p. m. luncheon given for the "Bell Five" at the Y. W. C. A. Miss Dilly, physical director, and Miss Younklin, coach, were the guests of honor. Covers were laid for eight. The decorations were sweet peas and tulips. Miss Younklin was presented with a handsome umbrella, and Miss Dilly with a copy of "Liddle" bound in leather. A large number of the girls are much interested in tennis, the season for which is just opening. The Outing Club promises to be a very large one.

Helen Harris has resigned her position in the local department at Jackson, and will soon be a resident of Battle Creek.

Margaret Badgely has taken a position as

local operator in the Jackson office after an absence of one year.

The toll business handled at Jackson office shows the highest figures ever handled. An increase of Michigan State "out" messages amounted to almost 200 more than March, which was a great increase over the previous months. All the operators are campaigning on saving cancelled work, and they are getting encouraging results.

The multiple marking position in the Jackson office is proving a great improvement over the former methods of handling changed numbers, etc.

Girls of the Union City exchange gave a farewell party in honor of their former manager, P. E. Ganson, and presented him with an appropriate remembrance. Mr. Ganson goes to Grand Ledge and is succeeded by A. B. Hawley.

Among the facilities shortly to be added in this district will be a phantom circuit between Albion and Detroit, made up of new copper wires between Detroit and Battle Creek, to pass through Albion in conjunction with one of the circuits now in use between Albion and Detroit. The new route will be ready for use by August. This circuit is part of an estimate recently authorized for this territory, amounting to \$25,000.

Kalamazoo District

The public office and operating room at Benton Harbor, which have been remodeled, were completed by May 1st.

Several new buildings have been started at Niles since spring, and prospects for good business this summer look bright.

The Niles chief operator recently spent a day with the local force at Three Oaks, assisting the operators to better traffic methods.

D. H. Brown succeeds W. E. Stubbs at Richland.

Summer resorters out of Dowagiac and Eau Claire are to be provided with service under an estimate providing for toll extensions and authorizing an expenditure of \$3,007.

The toll station at Hinchman, Berrien county, has been discontinued. This station will be considered a Class D office on Berrien Springs.

Lansing District

Elsie Wright, an operator in the Charlotte exchange, was married the end of April to Clyde Chappell, the center fielder of the Charlotte "locals" for the past two seasons.

Menominee District

Arrangements are being made to supply service to Alpha and St. Nicholas, two new towns which have sprung up in this district.

Mine owners in and around Iron River have made an early start moving ore. If this indicates a large tonnage for the season, it also means improved business conditions in this territory.

Petokey District

The Ramona Hotel, in Petokey, is now in the hands of a Mr. Grabenhauser. Mr. G. says he was one of the original stockholders of the Bell Telephone Company of Cleveland, but was later obliged to sell his stock—to his lasting regret, he adds.

The name of the Gregory toll station, in Leelanau county, has been changed to Tonawatha. Mrs. Anna Gregory continues as manager.

April 30th the operators at Cadillac gave a dancing party in the Knights of Pythias Hall. The occasion was greatly enjoyed by a large gathering of subscribers, in addition to the operating force. The hall was dec-

orated with streamers, large blue bells and palms, altogether making a very attractive appearance.

A metallic circuit will be strung from Petokey to Boyne Falls and phantom transportations will be arranged so as to provide two new circuits between these points.

The Petokey exchange installed thirty-four new stations during April. These represent the vanguard of the summer and resort business.

Port Huron District

The new toll switchboard was cut into service at Port Huron May 2d. The new board is in four sections, and provides eight positions. This equipment will provide for all toll traffic in this section until June 30, 1916, when, according to the engineer's figures, additional equipment will be required. An additional section to the local board was installed at the same time as the new toll board, which gives Port Huron a sixteen-position local board.

Manager R. E. Crowe of Armada has been transferred to Romeo, succeeding Manager T. D. Coe, retired. Mr. Crowe will continue in charge of the Armada exchange in addition to the Romeo exchange.

Rose Koehler, chief operator at Marine City, resigned May 15th. Miss Koehler is to move to Dearborn with her parents. Florence Boyle has been promoted to the position of chief operator. Gertrude Hayter has been promoted to operator No. 1, Steele Beebe has been promoted to operator No. 3, and Helena Love has accepted the position of operator No. 2.

On the evening of April 16th the Port Huron office force enjoyed a chop suey dinner at the Dominion Cafe in Sarnia, after which they attended the play "Checkers."

J. H. Boardman, equipment foreman, and family, are now settled in Port Huron. Mr. Boardman was formerly equipment foreman of the Saginaw district.

Construction Foreman Ferris has been at work in Mt. Clemens on local exchange circuits.

Not one vacant house is to be secured in Mt. Clemens and real estate men contemplate the erection of dwelling houses on a large scale to rent to factory employees. This seems a bright outlook for the telephone situation.

Manager James renewed an old acquaintance April 20th with Harry Switzer, who is now a business man at Ann Arbor. Mr. Switzer said that in his travels throughout the state he received no better telephone service than he had obtained in Mt. Clemens. No accurate measuring facilities were available at the moment, but Manager James' gratified smile is said to have become very wide at this juncture.

Saginaw District

The McDonough toll station, Saginaw county, Owosso Sugar Company, managers, has been discontinued. This station should now be listed as Class D Station under St. Charles exchange in the tariff and route book.

Roadway Company Notes

The Hortons Valley Telephone Company has signed a roadway contract, to connect at the Boyne City exchange. This company at the start will have twelve stations.

The Pine Lake Peninsula Telephone Company has signed a roadway contract to connect at the Boyne City exchange. It provides for an initial number of twenty-five stations.

A contract has been signed with the Elm Flat Line Telephone Company to connect with ten subscribers at the Scottsville exchange.

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

**National Pole
Company**

Escanaba, Michigan

When you want a Lock
you want the best.

**EAGLE
LOCK
CO.**

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
**NEW YORK
CHICAGO
PHILADELPHIA**

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



**"Thomas Quality"
Porcelain Insulators**

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by
Western Electric Company

Offices in all principal cities

Why Are "Always Re-
liable" Torches and
Furnaces Best? Because

No. 25 Quart
No. 26 Flat



they are
made only
from the
best mate-
rials ob-
tainable
and are guar-
anteed to be in
perfect con-
dition when they
leave our fac-
tory.

They are fit-
ted with our
PATENTED
Never Leak
pumps.

Combina-
tion torches
are fitted with
PATENTED
iron holders.

"One Piece" soldering
Write for catalogue. Manufactured by
OTTO BERNZ, Newark, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



No. 2521	Each	20c
Doz. lots		12½
100 "		11
500 "		10

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY

Incorporated 1911

**ALBERT G.
SEEBOTH
COMPANY**

MILWAUKEE, WIS.

Manufacturers of

**Cotton Batts, Cotton
and Woolen Waste**

Phone Hanover 532

Place your orders with us,
we save you money.

**"Beldenite" Rubber Insulated
Telephone Wires**



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue,
CHICAGO

ADVERTISING

In the

**Bell Telephone
News**

**BRINGS
RESULTS**



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

ANCHORS



that hold more, cost less, don't creep, easier to install. That's the story of **the Bierce Anchor.**

PROOF

All the big, live companies are using them, and lots of them. If you are not, you ought to get in on a good thing.

Write us for testimonials.

Pat. Aug. 19, '13.

THE SPECIALTY DEVICE CO.

112-14 W. 3rd St., Cincinnati, O.

The Pittsburgh Shovel Company PITTSBURGH, PA.

Manufacturers of

SHOVELS SPADES SCOOPS

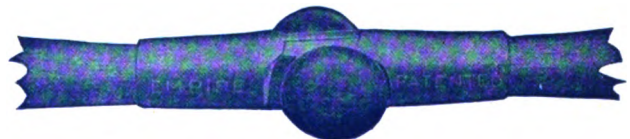
All Styles for Every Class of Work. Our High Grades Fully Warranted.

**Telegraph Shovels and Spoons
a Distinctive Specialty**

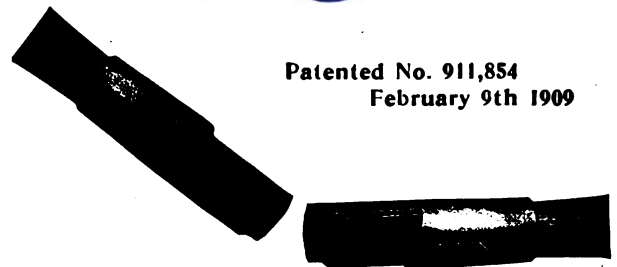
WRITE FOR PRICES

Suite 1832 Oliver Building, PITTSBURGH

Empire Conduit Rods



Patented No. 911,854
February 9th 1909



WITH OR WITHOUT WHEELS

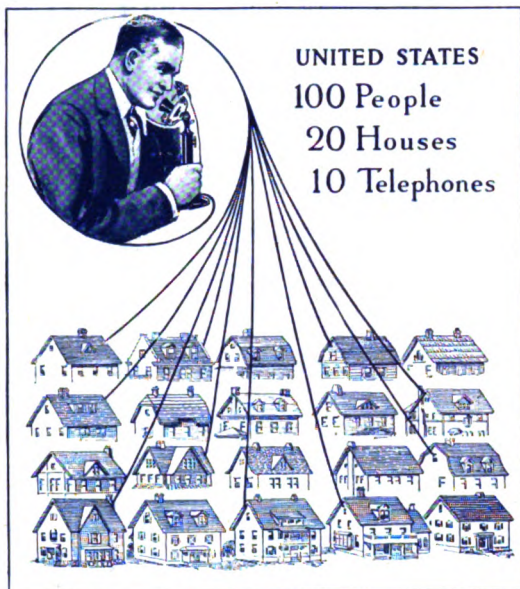
Requires less effort to push and can be run through new or old ducts.

Built for hard service, of best selected hickory, annealed castings, carefully machined.

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 WEST STREET, Cor. Cedar, NEW YORK



Results Compared with Theories

Here we have:

Ten telephones for each hundred persons.

Nearly one rural telephone to every two farms.

Reasonable rates fitted to the various needs of the whole people.

Telephone exchanges open continuously day and night.

Policy—prompt service.

There they have:

One telephone for each hundred persons.

Practically no telephones on the farms.

Unreasonable rates arbitrarily made without regard to various needs of the whole people.

Telephone exchanges closed during lunch hour, nights and Sundays.

Policy—when your turn comes.

*America's Telephones Lead the World
with the Best Service at the Lowest Cost.*



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



Vol. 3

July, 1914

No. 12

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

JUNE 1, 1914

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	523,973	254,999	778,972
INDIANA	89,750	185,088	274,838
OHIO	178,445	197,366	375,811
MICHIGAN	206,079	60,540	266,619
WISCONSIN	<u>144,481</u>	<u>117,528</u>	<u>262,009</u>
	1,142,728	815,521	1,958,249

BELL • TELEPHONE • NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 3

CHICAGO, ILL., JULY, 1914

Number 12

Chicago Telephone Officials Make Annual Inspection in Suburban Territory

Equipment Found to Be in Excellent Order and Conditions Generally Satisfactory.

By Clifford Arrick

The official's tour of inspection of the Suburban Department of the Chicago Telephone Company which began in May was concluded by a swing through the exchanges located on the North Shore and westward through Lake and McHenry Counties.

Early Wednesday morning, June 2d, motors were sent on schedules conveniently arranged to the homes of those who were to make up the party the rendezvous being Evanston, where all assembled by 8:30.

Three touring cars were required to transport the party, the personnel of which included: Alonzo Burt, vice-president and treasurer; H. F. Hill, vice-president in charge of operation; W. Rufus Abbott, general manager; Clifford Arrick, manager publicity department; B. S. Garvey, general auditor; S. J. Larned, general traffic superintendent; Frank Redmund, general plant superintendent; W. R. McGovern, engineer; Edward H. Bangs, engineer; A. R. Bone, general commercial superintendent; O. J. Holbrook, commercial superintendent; Frederick de Peyster, traffic superintendent; L. C. Jones, plant superintendent.

District Manager Gates conducted us through the Evanston exchange. The operators, of whom there were thirty-three at the switchboard, were busily engaged handling the early rush of calls; the volume of business has increased to such an extent that two additional sections have been added to the switchboard, giving a total of thirty-six positions now available for properly caring for the needs of Evanston subscribers. The frame, the basement, the rest room the lunch room and the supply room, in fact the whole building, was thoroughly gone over and the general opinion was that there was a place for everything and everything was in its place.

Mr. Gates joined the party and acted as its guide as far as Highland Park. Our first stop from Evanston was Wilmette, where another lot of busy operators was found, working amid immaculate surroundings.

Winnetka and Glencoe come next in order. The Glencoe exchange, like that at Evanston, is installed in a home of its own, that is, in a building devoted entirely to telephone business; it is situated on a spacious lot where it has ample room for growth.

A run through shady driveways that wind amidst attractive

homes brought us to the Highland Park exchange. It is located on the floor above the Highland Park State Bank building opposite the Northwestern station. District Manager Ford joined us at Highland Park, Mr. Gates bidding the party goodbye.

The drive from Highland Park led through the military reservation at Fort Sheridan and over the magnificent roads that twist about, now in sunlight, now in shadow, between estates, the values of which run high into the millions, and which constitute the municipality of Lake Forest. Of course none of the show places were visited, but glimpses were caught now and again of handsome and artistic structures surrounded by velvety lawns, formal gardens and other wonderful exhibitions of the skill of the landscape gardener, the beauty of whose work is accentuated by a topography that makes for romance,

with deep ravines, rolling uplands and rugged bluffs towering above Lake Michigan.

The Lake Forest exchange is centrally located and is a most delightful spot to visit, particularly on a warm day. The switchboard equipment is on the first floor of the building in a spacious, well ventilated room, which was refreshingly dim and cool after the heat and glare of the road. The Lake Forest subscribers were at one time inclined to be extremely critical even censorious, but the

constant efforts of the Telephone Company to meet and overcome defects in the service has reduced criticism practically to the vanishing point and Manager Ford reports pleasant relations and smoothly running service.

On our way to Waukegan from Lake Forest we turned aside for a peep at the Naval Training Station at Lake Bluff. The buildings are attractive, the grounds extensive and the drive-ways excellent. The whole place is so clean and well cared for that it is worthy to be classed with telephone properties in the matter of neatness.

At Waukegan, Mr. de Peyster, who was a most efficient committee on arrangements, had warned the proprietor of the Washburn hotel that his supply department need expect no mercy from our party and so ample preparations were made for our reception and a bountiful meal awaited us. Everything tasted good and everyone was refreshed, particularly Mr. Bangs, who had shown signs of hunger distress since



THE START AT EVANSTON.
Photograph Taken in Front of Exchange

shortly after ten o'clock.

Luncheon over, the Waukegan exchange was inspected, after which we moved on to Zion City. At this point after looking over the exchange, which is located in the Administration Building, Elder Voliva's secretary extended an invitation to us to make a tour of the building, which proved most interesting. A further invitation to attend the afternoon services held in the Tabernacle we were unable to accept owing to lack of time.

Antioch was our next objective, after which the exchanges at Lake Villa and Fox Lake were visited. These are small exchanges located in a section of Lake County that is dotted with pretty little sheets of water frequented mainly by Chicagoans, who come to idle away the weeks of the summer season.

From Fox Lake a twenty-eight-mile run to the Moraine hotel at Highland Park lay before us. We reached the hotel shortly after six o'clock and but a few minutes behind the scheduled time, which had been accurately figured out by Mr. de Peyster. The day's work embraced the inspection of ten exchanges and close to one hundred miles of toll lines. All of the property was found to be in excellent condition physically, while its care and operation is in capable and efficient hands.

Thursday morning after a short run over Lake Forest's famous Deer Path we visited the recreation cottage "Idlewild," maintained by the Chicago Telephone Company at Lake Bluff. Here we were greeted by a dozen merry operators, chaperoned by Mrs. Dewhurst. The cottage is delightfully situated, near the bluffs, which at this point rise sixty feet above the water level, but which have at their base an excellent bathing beach. The furnishings of the house are attractive, the bed-chambers cozy and the porches shady and inviting. All the girls seemed to be recuperating rapidly under the influence of the restful surroundings and one young lady, whose full name we failed to get but whose middle name is Eat (she said so!) vouched for the excellence of the table. Mr. Jones took a picture of the combined parties, after

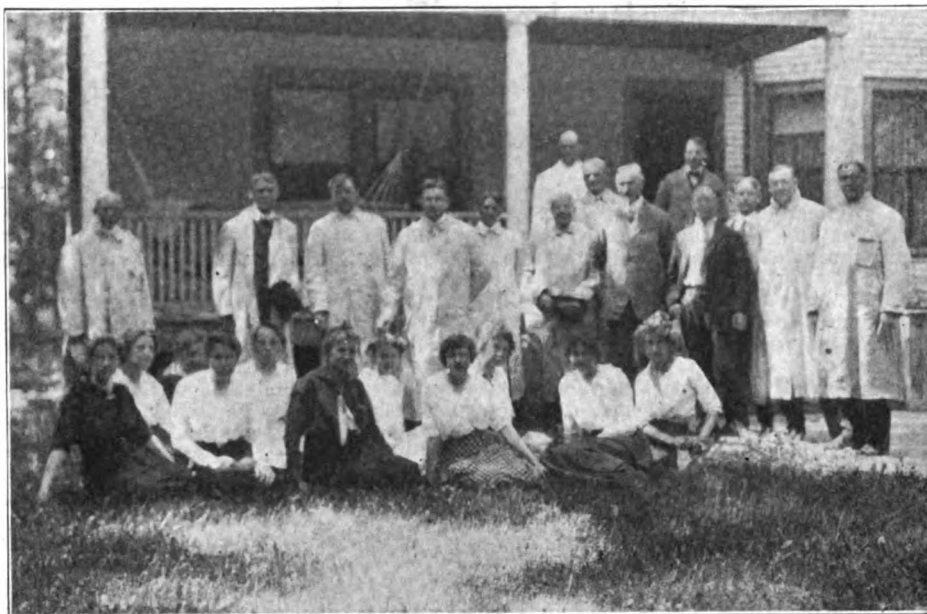
which Mr. McGovern sang the Irish Tango, with wonderful expression and without fatalities.

From "Idlewild" cottage we followed the route of the Great Lakes Cable, a cable and pole line of massive construction built by the Chicago Telephone Company to serve the rapidly growing resort neighborhood between Lake Bluff and McHenry. This line connects with the underground system between Chicago and Milwaukee and is built to withstand the severest of winter storms. Part of the facilities will be used, under lease, by the American Telephone and Telegraph Company in connection with its service to Minneapolis. The poles are all up and the cable is strung, but considerable splicing remains to be done on the west end of the line. Men were busily en-

distance covered ninety miles.

With our departure the inspection tour lost much of its interest, no doubt. However, the rest of the party stuck doggedly to its mutton, visiting on the third day the exchanges at Elgin, Dundee, Algonquin, Cary, Crystal Lake, Huntley, Union, Marengo, Woodstock, Harvard, Hebron, Delavan and Lake Geneva. The speedometer showed 108 miles for the day, while the total mileage for the tour was 400. Ideal weather conditions prevailed during the entire trip and there were no mishaps to cause discomfort or delay.

At all of the points inspected it was found that a high standard of excellence, both as to equipment and method of handling it, is being maintained. The exchange buildings are located so as to be convenient of access to the public; they are sanitary and pleasant both as to arrangement and surroundings. Every possible precaution has been taken for the safety of the force and for the protection of the service against interruptions. The pole leads through the country and in the villages are in good condition. An atmosphere of good feeling and interested cooperation pervades the organization throughout. This is characteristic of the Suburban Division and reflects great credit upon the genial Superintendents Messrs. Holbrook, de Peyster and Jones and their able corps of



INSPECTION PARTY AT IDLEWILD COTTAGE, LAKE BLUFF.
Girl Guests at the Cottage in the Foreground.

gaged on this work and in completing the loading stations which are located at intervals of 1.66 miles along the line.

We followed the Great Lakes line for twenty-four miles to McHenry, visiting the exchanges at Libertyville and Gray's Lake on the way. At McHenry the cable crosses the Fox River, the span being 436 feet long and twenty feet above the water.

Luncheon was served at McHenry and later the new exchange was visited. Here Mr. Conrath joined us for the run to Palatine.

Wauconda and Lake Zurich were inspected en route to Palatine. At Lake Zurich, owing to the capacity of the exchange room being limited to one No. 105 board, one operator and a fire bucket, our party had to pass in and out in single file, very much as do friends who have been "invited to attend" on less joyous occasions.

At Palatine, it was decided to divide the party, Vice-President Burt, Mr. Bangs and Mr. Arrick to return to Chicago while the rest were to proceed to Elgin. As rearranged, the party traveled together as far as Roselle, at which point it separated, Mr. Burt reaching home at six o'clock and Mr. Bangs and Mr. Arrick arriving at their abiding places shortly before seven p. m., "tired but happy." The number of exchanges visited on the second day of the tour was nine and the

assistants and operators.



O. J. HOLBROOK.

Commercial Superintendent Suburban Division.



CHICAGO GIRLS AT IDLEWILD.

The Milliammeter on the Test Desk

By G. W. Cummings, plant department, Chicago.

The following inquiry has been received by the BELL TELEPHONE NEWS and, with the answer, is printed as a contribution to a subject which is of considerable interest and importance to our plant readers.

QUESTION:

"On a recent visit to Chicago I noticed

the necessity of throwing a key or interrupting a conversation with a subscriber by banging him in the ear.

Without the milliammeter this information can be gained only by throwing in the voltmeter—cutting our listening circuit off and depriving us of the use of that most sensitive of instruments, the ear—calculating the resistance from the reading or taking it from a table, and then calculating the current. The calculation is not difficult, but wastes valuable time and increases the liability to

tential on the tip—if it remains constant long enough—measure the resistance to ground on the tip, using the shunt key and allowing for the earth potential, measure the branch battery on the ring, allowing for the earth potential, measure the office battery, subtract to find the net E.M.F., and calculate the current available for supervision from this E.M.F. and the line and apparatus resistance. The procedure on a report of "can't raise office" is hardly less involved. These are very common cases, and we have not the time to waste in this way when a milliammeter gives the desired information in an instant. In addition to the time required, a trial of the above method showed an error of thirty per cent., as compared with a milliammeter reading, due to variation in earth potential, fractional errors in reading, and perhaps errors in the apparatus resistances assumed.

Reports of "no disconnect" are aggravated in our territory by the fact that about one-half—48.99 per cent. in the Chicago exchanges and 37.12 per cent. in the suburban exchanges on March 1, 1914—of our stations are four-party. Two systems of ringing these stations are used, both of which involve an appreciable leakage of current through the ringers, especially in the suburban territory. This leakage is often increased by earth potential and other special causes until it is dangerously close to the releasing point of the supervisory relays. In doubtful cases the milliammeter tells us directly whether the leakage is above or below the relay adjustment, and avoids the necessity for calculation or guess work.

In a small exchange the amount of testing done would perhaps not warrant the expense of a milliammeter. In Chicago we gave the No. 2 desk a thorough trial in Lawndale exchange under conditions which enabled us to make an accurate comparison between its performance and that of our milliammeter desk. The special BX and four-party conditions



WAITING FOR BREAKFAST SECOND MORNING OUT.

Moraine Hotel, Highland Park.

that milliammeters are used on the test desks. Will you please tell me what advantage those instruments have over voltmeters with proper shunt combinations for use in connection with them?"

CURIOUS.

ANSWER:

The adoption of the voltmeter on the central-office test desk practically coincided with the adoption of common-battery signaling on the switchboard. The first desk so equipped in Chicago, for example, was installed in Oakland office in 1892 to care for the "express" portion of that exchange. It is universally recognized as indispensable to the maintenance of the high insulation necessary with that system of signaling. On the other hand until the recent authorization of its general use by the A. T. & T. Company, the use of the milliammeter was largely local to Chicago territory; and the question as to why our practice differs from that of other companies is a natural one.

While we began the use of the milliammeter in 1902, its present popularity with us dates from our adoption of the current method instead of the resistance method of relay adjustment and our realization of the transmission difficulties involved in furnishing service from one exchange system over 190 square miles of territory. The two principal things which we wish to know, as affecting the service over a line, are first, the current on the line which is available to operate our relays or may prevent them from releasing; and second, the amount of current which the subscriber has to talk with. This information the milliammeter not only gives directly—picking up as well any momentary fluctuations due to intermittent trouble—but since it is normally looped into the testing circuit our test is made automatically, without

error, especially if the testing battery is not absolutely true to voltage or if the trouble is intermittent.

Up to recently the standard in branch exchange practice in Chicago, was the use



DOING A LITTLE INSPECTING OUTSIDE OF THE REGULAR WORK.

Stock on the Farm of Arthur Meeker.

of the C-16 BX trunk circuit, which signals with the branch battery. Under ordinary conditions this arrangement is entirely satisfactory, and admits of a circuit which is ideally simple. As an illustration of what would be necessary in testing this circuit without a milliammeter, on a report of permanent disconnect it would be necessary to call the branch operator, have her put up a cord and close her key, measure the earth po-

mentioned above were eliminated so far as the regular desk was concerned, putting the testing on the same basis as in other cities. We had anticipated that No. 2 desk would prove somewhat slower than the other type, but estimated that two positions would be enough to handle the work. In practice we found that three and sometimes four positions were needed, indicating that the No. 2 desk was at least fifty per cent. slower than the other,

as well as being less accurate. In a busy exchange this difference in testing time would pay for a milliammeter very quickly, the simplicity of the milliammeter method puts less of a tax on the ability of the testman, and its greater accuracy is productive of higher standards of construction and maintenance.

In Merrie England

Not long ago somebody of prominence in the city of Liverpool protested loudly against the government's operation of telephones, making particular objection against the time taken to install a new telephone. But it seems that the Liverpool man was rather impatient. As proof, read the statement issued by the postmaster-general to whom inquiry was directed regarding the delay:

"The average time taken to connect the new subscriber with the telephone system," says the postmaster-general, "from the time of receiving the order is as follows: Birmingham, 51 days; Manchester, 40; Belfast, 40; Liverpool, 26; Dublin, 21½; London, 18½; and Edinburgh, 18."

Who wouldn't live in Merrie England, in Birmingham, for instance, and have the pleasure of ordering a telephone installed in one's business house, say on April 15th, and then one's eyes cheered on June 5th, with the sight of the installation man coming through the front door with his two or three civil-service, politically-cinched assistants? One could have a nice party to celebrate the installation of a 'phone in one's residence. There would be plenty of time to have invitations engraved, the catering arranged and the house decorated.

Here in this country we live too fast. We haste. We bolt our meals. We insist on rapid transit, and sometimes get it. We notify the telephone company we want a telephone, and if we haven't got it in two days we begin to worry the manager. If it isn't in place by the third day the chairman of the board of directors is liable to hear from us.

What Americans really need is something like the English system. It inculcates patience. It renders one willing to put up with any sort of service because we have waited so long for it that it seems a thing so much more desirable when finally we do get it.

The postmaster-general of Great Britain and Ireland neglected to say how long after a connection is made service begins. Probably one doesn't have to wait more than a week or two before the Central operator deigns to answer.

Anyhow, we now understand why the Englishman doesn't say "Hello" into a 'phone, but instead asks: "Are you there?"

—*New York Commercial.*

The Harassment of Business

By Frederick P. Fish, former President of American Telephone and Telegraph Company.

The business organization and methods of old days were entirely inadequate. No dozen of the richest men in the country could have built any one of the transcontinental railroads. No capitalist single-handed or in conjunction with others with whom he would be able to associate himself could have worked out any of the myriad industrial problems that were pressing for solution. If such great work was not to be indefinitely delayed, great aggregations of capital were essential. Therefore in every direction we, the people, encouraged just those movements which, logically developed, resulted in the

conditions as to which there is now so much criticism. Among other things the people individually and collectively co-operated to make possible and to assure such forms of corporate organization and such rights and powers on the part of corporations as would bring together, under a single management, not in a few instances, but in many, the vast sums of money that were necessary to meet the existing conditions of industrial expansion. Hardly a state in the Union did not between 1870 and 1900 modify its corporation laws, based as they had been upon simpler conditions fifty years ago, so as to make it possible for capital to be consolidated under a single control for the accomplishment of great undertakings. It is only by this process that

Saturday, March 28th. Before the fire was extinguished, the entire city and several small suburban towns were without telephone service.

The telephone company sent its call for help to the Western Electric Company in Boston. Within a few hours tons of material and scores of men were hurried into Worcester. The destroyed circuits were replaced, and the damaged lines sorted out and reconnected at a rate which gave back service at the rate of 2,000 subscribers every twenty-four hours.

The wind-up came on Sunday, April 5th, when at 9 p. m. the mayor of Worcester soldered in the last connection.

The other record was made at Canonsburg, Pa., after fire had destroyed the switchboard in the local Bell exchange,



LOADING STATION, GREAT LAKES LINE.

the savings of the many could be utilized to secure the great results the people demanded.

The same thing has gone on all over the world; but while the results for good and for evil have been substantially the same in Germany, France, England and all other progressive nations, nowhere has there been the same reaction as in this country, and nowhere is business so much embarrassed by legislation which interferes with its normal methods of operation. It may be that we are right in our attitude toward the business of today, and that other nations are wrong.

It may be that to insure the social and political well-being of our people that there must be as great sacrifice of economic efficiency as some of us now demand. But we should carefully consider at every stage of our corrective legislation what is to be its effect on our industries, not overlooking the world competition upon which to so large an extent our national prosperity as well as the prosperity of each one of our individual citizens will surely depend.—Reprinted from *Public Service*.

Two More Good Records

Two recent fires in telephone central offices—one in Worcester, Mass., and the other in Canonsburg, Pa.—and the subsequent rapid restoration of service to subscribers have served to give proof of what can be done by a well-equipped organization in time of emergency.

Telephone service was restored to nearly 19,000 subscribers in less than nine days after the fire in the New England Telephone and Telegraph Company's office at Worcester in the early morning of

putting nearly 1,100 lines out of commission. Communication was completely cut off for about twenty hours.

The fire broke out in the terminal room about 11 o'clock at night. The night operator noticed the room filling with smoke and summoned the fire department. It was not until the store room and offices on the ground floor and the terminal room on the second had been pretty badly damaged by smoke and water that the flames were extinguished.

The Western Electric Company was called about 2:30 a. m. and material ordered for shipment from its Pittsburgh house. A special train carried five sections of a No. 102 switchboard to be used temporarily to handle the common-battery subscribers and two magneto sections for the rural and toll lines. At 3 o'clock that afternoon the first subscriber's line was cut into the switchboard and the work was then soon completed. On the tests not a single case of trouble developed. This emergency switchboard took care of the traffic until new equipment was put into service ten days later.

Careful organization and perfect coöperation with the forces of the telephone company, and the location of Western Electric distributing houses at business centers, made these records possible.

Cannot Restrain Praise

The BELL TELEPHONE NEWS is one of our up-to-date contemporaries. To its interesting social news it has added a fashion department which will prove of large interest to the company's thousands of fine young women.—*Mt. Clemens (Mich.) Monitor.*

"Extra" Good Service at Jackson

A destructive fire at Brooklyn, Mich., on the night of May 25th, which caused a loss estimated at \$50,000, gave a chance to the Bell manager at the Jackson exchange to do something additional in the way of service that was appreciated by the recipient.

Walter L. Stevens, the local manager, received word at 11:35 p. m. from the night toll operator, Miss Waltz, that the town of Brooklyn was burning and that help was needed. Both Hillsdale and Jackson, it seems, had been wired to for assistance, but the former city had no fire engine and the Jackson department had no means of transporting an engine to Brooklyn. Brooklyn's only fire equipment consisted of a chemical engine, which was not of much use on this occasion, the fire being too big for it. Mr. Stevens was also informed by Miss Waltz that the Brooklyn telephone office (the exchange belongs to a connecting company, the Brooklyn Switchboard Association) was destroyed. He immediately called Foreman Foley, a Liveryman Hastings for an automobile, went to his office and secured a wall set, covered wire and pay station sign, etc., and, stopping at the office of the Jackson *Patriot*, offered to take a reporter along with him to Brooklyn, an offer which was gladly accepted.

Starting at 12:30 a. m., the auto reached Brooklyn in about an hour. The rest of the story is best told by the *Patriot* reporter:

(By H. C. Teller.)

Lying in the grass beside a telephone pole, several blocks from the burning business district at Brooklyn a *Patriot* reporter telephoned the story of Monday night's disastrous fire to the *Patriot*. The unique means of establishing communication was made possible through the courtesy and efficiency of Manager Walter Stevens, Foreman Daniel Foley and Head Troublemaker James Foley of the Bell Telephone Company, and George Hastings, whose auto sped the party to the burning village.

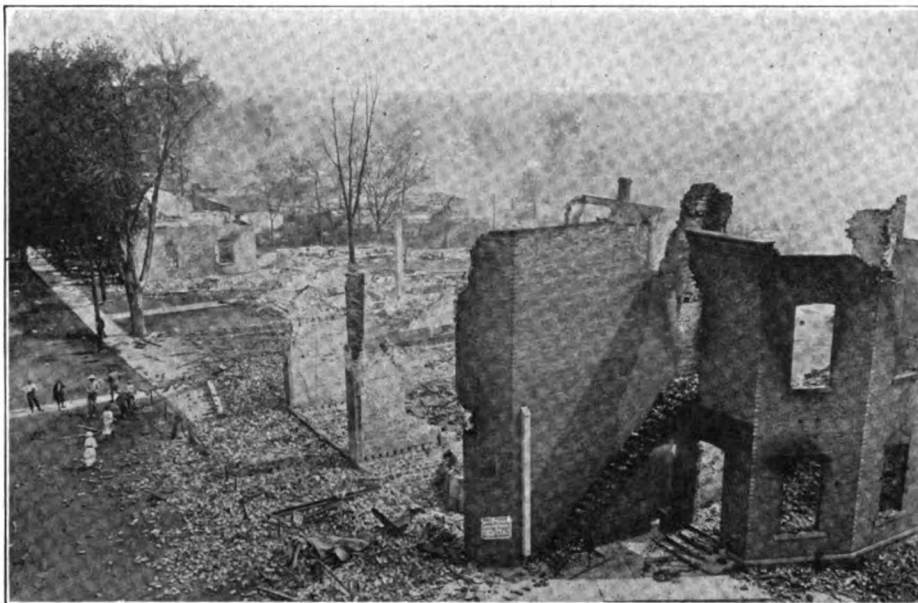
News of the fire reached Jackson via telegraph. Manager Stevens and his assistants and Mr. Hastings, together with the writer, started for the fire at 12:30 yesterday morning. Good time was made and the party reached Brooklyn at 1:30. By the aid of a lantern, the reporter made notes of the fire and interviewed property losers and spectators.

"Hooked Onto" Toll Line.

In the meantime, the Bell Company employees were locating the toll-line lead. Seven minutes after the party reached Brooklyn the reporter and telephone workers were ready to talk to Jackson, the making of the connection being the only thing standing in the way of communication. Foreman Foley, with an

electric flashlight, climbed a tall pole and found the toll line. On the other side of the pole the wires were hanging down. In seemingly no time a covered wire was "hooked on" the toll line. A wall telephone instrument was connected in less than two minutes. The telephone stood against the telephone pole and rested on the ground.

Two rings of the bell brought an answer from the Jackson long-distance Bell operator and Manager Stevens asked for connection with the *Patriot*. This was immediately established and the writer, lying in the grass and reading his notes by a dim flashlight, telephoned the de-



RUINS AFTER FIRE AT BROOKLYN, MICH.

tails of the fire to the *Patriot* office. At two o'clock the story was complete and ready for the typesetting machines.

Despite the unusual connection the service was fine. Names were given with little repetition and the story was ready for the press at the usual time of closing the city edition. But for the courtesy of the Bell Company attaches and the speed with which the situation was handled the fire story would have been hours later.

One of the heroes of the fire was "Red" Smith, the Brooklyn "hello girl." He stuck to his post until the flames were eating towards the switchboard. "He would have been there yet, I guess," said Vice-president Green of the telephone company, "had not a bunch walked in and taken the switchboard away from him." Long-distance service was established by Manager Stevens and Messrs. Foley early yesterday morning and merchants, and others, used the telephone, which is an almost indispensable necessity after a disastrous fire.

The only loss sustained by the Michigan State Telephone Company was a single-partition booth. The connecting company saved its switchboard, but lost the interrupter, wall frame and connecting rack and several small pieces of office furniture. The photograph shows the remains of the Culver State Bank building, in which the telephone office was located.

Toll service, as may be seen by the reporter's story, was resumed shortly after the fire. Local service was expected to be resumed as soon as equipment could

be secured from the Western Electric Company.

Brooklyn's population is about 650. There are 358 telephone subscribers, of whom about two-thirds are rural users.

On to Richmond

The fourth annual meeting of the Telephone Pioneers of America will be held at Richmond, Va., October 29th and 30th. The headquarters will be at the Jefferson hotel. The officers of the association are:

President, Theodore N. Vail.
Vice presidents, Thomas D. Lockwood, Thomas B. Doolittle, Charles F. Sise, George E. McFarland.

Secretary, Henry W. Pope.

Treasurer, George D. Milne.

Executive committee, Angus S. Hibbard, chairman; Charles G. Du Bols, Charles E. Scribner, Edgar F. Sherwood, Jas. T. Moran.

Corresponding secretaries, P. Kerr Higgins, St. Louis, Mo.; Darwin P. Fullerton, San Francisco, Cal.; William B. T. Belt, Omaha, Neb.; William J. Malden, Chicago, Ill.; Kenneth J. Dunstan, Toronto, Ont.; Howard B. Emery, Boston, Mass.; William J. McLaughlin, Philadelphia, Pa.; Henry W. Bellard, Denver, Colo.; George W. Foster, Dallas, Tex.; Edward E. Bawvel, Nashville, Tenn.;

William H. Adkins, Atlanta, Ga.; William T. Naff, New Orleans, La.

Arrangements for transportation of pioneers from Chicago and Middle West points are under way. It is probable that round-trip tickets by several different routes will be offered, giving convention visitors the privilege of stopovers at Washington, Norfolk and possibly New York and other points.

Thanks for Benefits

A Chicago employe was laid up recently with a bad attack of inflammatory rheumatism. In accordance with the plan for sick benefits he received his pay while ill. He wrote the following letter of appreciation to W. I. Mizner, secretary of the Benefit Fund Committee:

My Dear Sir: June 11th, 1914.
Permit me to thank this company through you for the many courtesies extended during my recent two-month siege with inflammatory rheumatism.

It was a very comfortable feeling, I can assure you, to have my salary arrive so promptly. It did much towards hastening my recovery.

A corporation that is as liberal with its employes as the Chicago Telephone Company should never have occasion to preach loyalty to them. Again thanking you for the company, I am, Very truly yours.

Western Electric Catalog

The Western Electric Company has issued an attractive catalog of forty-eight pages devoted to inter-phones and accessories. The publication contains helpful suggestions as to the selection and installation of interior telephone systems and will be of assistance to electrical dealers and contractors.

Concerning Certain Fallacious Theories

By Dr. Alvah H. Doty, Medical Director Employees' Benefit Fund, Bell System, Western Electric Company and Western Union Telegraph Company.

In routine life there are many things done in connection with our personal habits relating particularly to eating and drinking which are influenced by popular theories and which are accepted without inquiry as to their healthfulness or possible injury to the body.

An illustration of this will be found in the various plans which are followed in the arrangements of our diet or method of eating. For instance, it is a common practice to take for breakfast a small portion of fruit, a roll and some coffee and nothing more until noon-time or later in the day. This is based on the theory that upon rising in the morning the digestive apparatus is not prepared to deal with a full meal and to properly assimilate it.

There is nothing substantial to justify this belief, for if a person is in a normal condition the digestive organs should be at their highest point of activity in the morning for the work of the preceding day has been followed by ten or twelve hours of rest and these organs should be in a fit condition to effectively perform their work. Ill health or dissipation are about the only reason why this should not occur. Furthermore, there is no condition which more clearly indicates good health than a desire for food upon rising in the morning, for the appetite particularly in a healthy condition of the system indicates the need of food.

Our body may be likened to an engine, for it must have proper and sufficient fuel to run it. In the morning the day's work begins and good substantial food must be supplied in order that the various functions of the body may be properly performed; a cup of coffee and a roll will not meet this requirement. The fact that some may be able to accomplish their work with but little or no breakfast is no indication that this is a healthy or proper method for general use.

Breakfast should constitute the best meal of the day. At noon-time business is as a rule in its most active stage and the meal at this period should be small in quantity and consist of articles which are easily digested, for if a heavy meal is taken a person is apt to become sleepy and unfit for good active work, as the large amount of blood required by the digestive tract under these conditions is withdrawn partly from the brain and materially interferes with the function of this organ. There are many who take no lunch and feel much better for it, and this is not unreasonable provided a generous breakfast has been taken, *but not otherwise*; however, it is probably better to take some light nourishment at noon.

Later in the day the system naturally becomes reduced in activity and digestion is not so easily performed, therefore a full meal in the evening, consisting largely of meat and other articles which are more or less difficult to digest, places considerable strain upon the alimentary tract and is often associated with more or less distress. For these reasons heavy dinners cannot be regarded as conducive to health.

Among those who perform manual labor associated with more or less constant activity of the muscular system a large supply of fuel is called for, besides the circulation of the blood is more active and the digestive apparatus is better able to digest a greater amount of food. For

among those of sedentary habits. The natural remedy for this is a regulation of the diet, a diminished amount of food and plenty of exercise; where this method is faithfully carried out for an extended period the result is quite sure to be successful.

Considerable discussion has taken place within the past few years regarding the value of a purely vegetable diet. The importance of this has been rather to show that we eat too much meat than to prove that we should eat nothing but vegetables, for a mixed diet is required to maintain good health, particularly among active workers. This has already been referred to in the article on food. Very often persons who believe they are living

entirely upon vegetables are taking some articles of food containing nitrogenized matter or proteids of which meat is so largely composed.

There is also a popular fallacy regarding the value of fruit as an article of diet. While fruit is exceedingly palatable, refreshing and more or less stimulating to the digestive organs, it contains as a rule but little nourishment, for it is usually composed chiefly of water and the residue is quite indigestible. The value of fruit depends principally upon its acid juices.

It is hardly necessary to refer to the frequency with which older persons as well as children are made ill by eating fruit, particularly that which is stale or unripe. This occurs more often among the poorer classes who obtain their supply from street stands, and which is not only often unripe or decayed, but is quite liable to be infected by the filth from the street and by the cleaning rags and hands of the vendor who often takes home the supply which is left over at the end of the day. This condition is largely responsible for the intestinal trouble occurring among children of the poorer class, particularly during the summer months.

Lemon juice is often used in large quantities and for an extended period to reduce weight as well as a remedy in other conditions. While some persons may follow this practice with no apparent ill effects or even with benefit, the continued use of lemon juice in a large amount is injurious, particularly in its effect upon the teeth and the digestion.

Fresh and ripe fruit, if properly used, is very palatable and refreshing and of value in various ways, but it should be understood that as a rule dependence cannot be placed upon it as an important nutritive agent; furthermore, each one is apt to be differently affected by fruit and the extent to which it is to be consumed



TEMPORARY OFFICE AT BROOKLYN, MICH.
Installed After Fire Described on Page Five.

these people a liberal noonday meal is required.

Omitting breakfast as a means of reducing weight is now a common practice and is also an improper one, for it is a diminished amount of food properly distributed over the day that is called for and not a diminished number of meals; besides it must be remembered that, while a person deprives himself of food for the purpose of reducing weight, it may be carried so far that the body does not receive sufficient support to properly carry on the action of the heart and other organs, and unpleasant results may follow. The great desire on the part of some people to reduce their weight has been taken advantage of by charlatans who offer for sale all sorts of remedies for this purpose and usually guarantee that they will act promptly. The use of these nostrums is not infrequently followed by serious results, for the body cannot be tampered with by such drastic measures as are usually involved in the pernicious treatment referred to, although the consequences may not be at once apparent.

The body weight cannot be increased unless food is supplied. This takes place more readily when the diet contains a large amount of fat and an accumulation of body weight is much more apt to occur

must be decided by the individual. Some can eat apples without any distress, others are unpleasantly affected by this fruit. Under these circumstances they should be avoided. Oranges contain a large amount of indigestible material. This is recognized where oranges grow and the natives extract the juice and the remainder of the orange is thrown away. Instinctively the people in these regions know

testine during digestion and afterwards to expel the residue from this tube. If the muscular fibers become inactive, torpidity takes place and indigestion and constipation are quite sure to follow.

Exercise and proper food are the most important factors in maintaining the tone of the alimentary tract. This should be remembered, for if the laws of personal hygiene which relate to proper food and

"The Making of the Voice Highways"

This is the name of an unusually attractive pamphlet put out by the Western Electric Company. It describes in popular phrase the manufacture of telephone cable and tells something about how it becomes underground highways for the transmission of speech. The book is very handsomely illustrated with fine half-tone cuts showing processes of cable making in the big mills at Hawthorne, and some scenes on the Boston-Washington underground line.

Feeds Scotch to Telephone

It was not until several days afterward that the management of a big New York hotel consented to disclose the cause of a disorder in the telephone service which occurred a few weeks ago.

The tiny light that indicates a call from one of the rooms began to flash and go out with startling frequency. The operators tried to answer the flash, but could do nothing. The light came on and went out, and did the same thing over and over again. An inspector was sent up to the room at the other end of the wire to find out what was the matter.

The room was occupied by an Englishman who had come over for the horse show. The door was unlocked. When the inspector walked in he found the occupant sitting on the bed holding in one hand a bottle of Scotch and in the other the telephone transmitter. While the caller stood in the doorway the man on the bed lifted the bottle and poured some of the contents into the transmitter.

"Have another, old top. Don't be bashful," he urged. The room smelt strongly of liquor, and the rug was well soaked with it. The bottle was almost empty.



FLOAT OF CHICAGO TELEPHONE COMPANY IN PARADE AT ALBANY PARK.

This float, which was decorated under direction of the publicity department, was a facsimile of the Chicago Telephone Company advertising seal. It measured eighteen feet in length. It was covered with white excello and lettered in telephone blue. The float provoked much applause from the fifteen or twenty thousand people who viewed the parade, and was awarded first prize, a silver loving cup.

that the tough fiber constituting the residue has no nutrient value and is indigestible. We learn from this that while fruit is very desirable and forms an important part of our diet, it must not be used as a substitute for more nourishing articles of food and that care must be taken that it is ripe and fresh when eaten.

It is a common belief that night air is bad for the health. This is not true, for if it were the practice of sleeping out of doors, which is now so popular and productive of so much good, would not be encouraged by those who are practically familiar with these conditions. The belief that night air is unhealthy originated long ago and chiefly in connection with the prevalence of malaria, for it was believed that after sundown poisonous emanations from the ground, particularly in swampy districts, vitiated the air and was the cause of this disease; now we know that malaria is transmitted from one person to another only by the mosquito.

It is very important to know this, for there are many persons who cannot find time during the day for exercise and who have been led to believe that good results in this direction cannot be obtained after sundown, whereas it is healthy and desirable that those who cannot spare the time during the day should exercise at night. This refers specially to those of sedentary habits or brain workers, for these people are very commonly affected with headaches, insomnia and constipation, the latter usually resisting the ordinary forms of treatment.

The intestinal tract is a tube about twenty-five feet long and surrounded by muscular tissues, the function of which is to cause proper movement of the in-

testine during digestion and afterwards to expel the residue from this tube. If the muscular fibers become inactive, torpidity takes place and indigestion and constipation are quite sure to follow. Exercise and proper food are the most important factors in maintaining the tone of the alimentary tract. This should be remembered, for if the laws of personal hygiene which relate to proper food and

An Arrival and a Departure

Among the passengers arriving on board the new Cunard liner *Aquitania* on June 5th was Charles E. Scribner, chief engineer of the Western Electric Company. Mr. Scribner went to Europe primarily to appear in London before a parliamentary commission to present data regarding the new long-distance, high-speed printing telegraph developed under his supervision. His presentation resulted in an order for a trial installation, for which the equipment is already in process of manufacture. During his stay in Europe, Mr. Scribner also inspected and tested the new duplex cable installed by the German Reichspost between Berlin and Magdeburg. These tests indicated that in this important branch of telephone work the United States is substantially ahead of Europe.

On June 6th Gerard Swope, vice-president and general sales manager of the Western Electric Company, sailed for Europe on board the *Imperator* for a business trip in the course of which he will visit the company's various allied interests abroad. Mr. Swope will be gone for two months.



SILVER LOVING CUP—FIRST PRIZE WON BY CHICAGO TELEPHONE FLOAT IN NORTHWESTERN TERMINAL ASSOCIATION PARADE.

BELL TELEPHONE NEWS

Published Monthly by

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY.
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

B. E. SUMNY, *President*
A. BURT, *Vice President and Treasurer*
E. F. HILL, *Vice President*
W. I. MIENER, *Secretary*
L. G. RICHARDSON, *General Counsel*
B. S. GARVEY, *General Auditor*
J. G. WRAY, *Chief Engineer*
CLIFFORD ARBICK, *Manager Publicity Department*

W. RUFUS ABBOTT, *General Manager*,
Chicago, Ill.
H. O. SEYMOUR, *General Manager*,
Milwaukee, Wis.
ALLARD SMITH, *General Manager*,
Cleveland, Ohio
A. VON SCHLEGEL, *General Manager*,
Detroit, Mich.
H. H. HENRY, *Supply Agent*

Issued by the PUBLICITY DEPARTMENT

Amory T. Irwin, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

JULY, 1914.

Seeing by Wire

Every day, before our eyes, the impossible is accomplished. Therefore we hear without incredulity and almost without wonder that an English physicist, Dr. A. M. Low, has developed a device which will do for the eyes what the telephone does for the ears.

While the "seeing telephone," or whatever it may be called, is still in the laboratory stage, it is often a step from this stage to commercial usage. It would, therefore, be no surprise to witness its success in the near future.

At a dinner given in December, 1909, to the Directors of the Associated Press, DR. ALEXANDER GRAHAM BELL, speaking over the telephone from Washington to New York, made confident prophesy that an extension of the range of vision exactly analogous to the telephone's extension of audibility, was coming, and he warned his hearers that if any were inclined to be skeptical, to remember the confusion and humiliation which, not many years before, had come upon those who scoffingly declared that the telephone was a worthless toy.

Our Foreign Visitor

America is rediscovered almost every year. Tradition relates that some hardy Norsemen were the first white men to set foot upon the new world. They carried home wondrous tales of sunny shores which became a part of the folk lore of Scandinavia.

Now comes another Scandinavian, a savant of modern Denmark, and he discovers our land anew. It is DR. GEORG BRANDES and, like his adventurous progenitors he, too, finds strange things to tell about. The Americans, he says, are "slaves to the telephone." He adds a description of the way his telephone bell disturbed his rest while he sojourned in a hotel in New York.

In a measure the eminent scholar and critic is right. We are slaves to the telephone, but we glory in our chains.

DR. BRANDES spent a very busy two weeks visiting New York and Chicago and his most vivid impression seems to have been the omnipresence of the American telephone. It is too bad that his journey did not take him to Fort Madison, Ia., where he might have observed a most realistic demonstration of the telephone thralldom into which the American people have sunk.

Fort Madison is a place of about 10,000 inhabitants. Recently an accident to the plant deprived the city of telephone service for two days. If the people of Fort Madison had been slaves of the orthodox variety, they must have felt a great relief and joy when the call of the bell was stilled. But did these people join in an anthem of thanks for the bursting of their fetters? Not they. They were the most peevish lot of people in civilization until a gang of soulless Simon Legrees in the form of cable splicers welded their telephone shackles safely on again.

During these two days of liberty, twice the usual number of people thronged the streets of Fort Madison—enjoying their freedom? No, transacting business ordinarily cared for by lift-

ing a receiver. Merchants, manufacturers and professional men were compelled to use the time of expensive employees running errands. Messenger boys reaped a harvest from those housewives who did not tramp downtown to buy their daily supplies. Grocers were compelled to employ men to visit their customers instead of having one girl call and receive all regular orders by the telephone. Newspaper editors reported that their staff efficiency so far as time (probably the largest element in the contested newspaper field) was concerned, was reduced ninety per cent. Physicians reported a marked falling off in the number of calls received. Other professional men remarked that the press of business at the office and the lack of telephone service kept them from making important appointments.

Yes, we in America are telephone slaves, but we crave no act of emancipation which would restore the times when we walked instead of talked.

Business Letter Tramps

A letter from the penitentiary created somewhat of a sensation at the recent convention of Associated Advertising Clubs of the World, held at Toronto—or as much of a sensation as might be considered possible in such a sophisticated gathering. The letter was written by Louis Victor Eytinge, a "lifer" in the bastille at Florence, Ariz.

Eytinge became ill in prison and, needing money, took up advertising. Last year he cleared \$900. He sent word to the convention that this year he believes he can make \$5,000. We refrain from any of the obvious comments which might be made anent advertising men and penitentiaries. It is the prisoner-advertiser's opinion of business letters which is of chief interest. He likens the majority of them to tramps.

"It is about time," he said, "that business men were awakened to the danger that threatens their most modern method of merchandising because of the ragged hordes of letter hoboes that are beating their way through the American mails."

Letter hoboes! What a pair of words to conjure with. You have all seen these Wandering Willies, soiled, ragged, shambling, misspelled, thumbled, out at the toes and run down at the heels. No better phrase describing them was ever coined than "letter hoboes."

The hint contained in the stripe-garbed philosopher's communication to the advertisers' convention is a sermon. Let us all avoid starting any tramps through the mails.

Chess and Checkers

Chess is probably the best game of skill ever invented. Checkers, also, is a game scarcely less esteemed as an intellectual pastime.

The formation of a chess and checker club among Chicago Telephone employees was a recognition of the fact that all are not athletes and many prefer the less strenuous, if also less spectacular, forms of amusement. The rapid enrollment of more than one hundred members is good evidence also that many are glad of the opportunity to indulge in these absorbing and brain-building pastimes as a part of the company's recreation program.

The Bell Telephone Chess and Checker Club is destined to produce some experts who will make the Western Electric, Peoples Gas and a few other clubs sit squarely up and take notice.

Telephones and Civilization

In some respects the telephone is among the truest indices of a nation's or a city's modernity and civilization. For a community to have a low wire mileage, few instruments, and insignificant investment in this great basic application of physics to human intercourse is to confess indifference to celerity and convenience in business and to acknowledge conservatism as to extension of the physical area over which kindred, friends and acquaintances may project themselves through the spoken word. Nothing in the realm of external things is more indicative of an ancient and isolated civilization's awakening than the speed with which it takes up with the telephone once the doors are open by law or by conquest for the incoming of the engineer, builder and capitalist from the West.—*Christian Science Monitor*.

The Work Habit

A piece of barnyard philosophy, printed in fancy type, is going the rounds. It reads like this:

"It's worry that kills, not work;

So don't worry, just work."

Children begin to "play at work" as soon as they can walk or toddle. They work without worry. They are happy.

"We are creatures of habit." Cultivate the work habit. Get out of the worry habit.

Important Decision of Utilities Commission

In announcing its decision in the case of the Macon County Telephone Company against the Bethany Mutual Telephone Company the Public Utilities Commission of Illinois went on record as against the establishment of more than one telephone in the same city or town.

Before giving out the formal decision members of the commission told the attorneys in the case that they would have to show that the establishment of a new telephone system would benefit the community before a permit would be issued for its operation. The formal opinion follows:

"This commission holds that the facts in this case bring the case under the policy of this commission, which is that certificates of public convenience and necessity will be denied to telephone companies where the application is for the establishing of an additional telephone system in a city or village where a telephone system is already in operation and is furnishing adequate service at reasonable rates."

The Macon County company wanted an injunction to prevent the Bethany company from establishing an exchange at Bethany, where the Macon company already was established. The Bethany company contended that it should be permitted to establish an exchange because the people wanted it. They claimed that the established company was not giving good service.

"I don't see how it is going to help you to establish another telephone system," Judge Owen P. Thompson, who was presiding at the hearing, said. "If your rates are exorbitant or your service inadequate, you can come before this commission for relief."

The judge then declared that he felt sure the business men who would be compelled to pay for two telephones instead of one, would oppose the new system.

"If two can be established, there can be three or four and there will be no end to the number of telephones which will be thrust upon the business men."

"The thing that we are driving at is an adequate service," ex-Governor Yates, one of the sitting members of the commission, explained. "We do not care whether the company is large or small. We will insist on adequate service, and we will have it."

The Bethany company finally agreed that the company would confine itself to a strictly mutual business, and the commission then announced that it had no jurisdiction and the case was dismissed. As a mutual company, however, it can serve only its members and cannot do a public business.

The state utilities law gives the commission power to prevent the establishment of more than one telephone system in a city when it deems it necessary in order to insure adequate and reasonable service.

Seeing by Wire

Dr. Archibald M. Low, a London consulting engineer, claims to have discovered a method by which light may be transmitted by wire. The invention is thus described: The contrivance consists of a transmitter and a receiver connected by wire. The transmitter is a screen divided into a large number of small squares—cells of silicium, the electrical resistance of which element varies according to the light that touches it.

Over the screen is passed a synchronously running roller consisting of a number of pieces, which are alternately conductors and insulators. The roller is driven by a motor of 3,000 revolutions per minute, and the resulting variations of light are transmitted along an ordinary conducting wire. The receiver is made up of a series of cells operated by the passage of polarized light through thin slats of steel, and at the receiver the object before the transmitter is reproduced as a flickering image.

The process is referred to by the inventor as a "kinematographic application of common electrical principles." The system has been tested through a resistance equivalent to a distance of four miles, but in the opinion of Dr. Low there is no reason why it should not be equally effective over far greater distances.

The cost of the apparatus is considerable because the conductive sections of the roller are made of platinum and many wires are required for the transmission of the images. The invention is called the "televista."

Publicity Managers Meet

The publicity managers of the Bell System held an interesting meeting at Toronto, Canada, June 26th. Those present were: J. D. Ellsworth, American Telephone and Telegraph Company; K. J. Dunstan, R. W. Logan, C. E. Fortier, Bell of Canada; T. J. Feeney, New England Telephone and Telegraph Company; R. S. Scarborough, New York Company; P. C. Staples, Bell Telephone Company of Pennsylvania; J. E. Boisseau, Chesapeake and Potomac Telephone Company; G. E. Gable and P. L. Eldridge, Bell of Pennsylvania; J. J. Hugus, Central District Telephone Company; Clifford Arrick, Central Group of Bell Companies; Humphrey Sullivan, Southwestern Group of Bell Companies; Frank Builta, Northwestern Group of Bell Companies, and P. L. Thompson, Western Electric.

J. D. Ellsworth was elected chairman and Clifford Arrick secretary of the meeting.

The object of the meeting was to discuss the methods and mediums best adapted to the promotion of the business of the Bell System and for the advancement of increasingly cordial relations with the public.

Practically all forms of publicity pertaining to telephone work were considered, including display advertising, booklets, special literature, window displays, demonstrations at country fairs, motion pictures, lectures, etc.

The relationship of the publicity departments to the other branches of the service received considerable attention.

Committees were appointed to consider the more important phases of the work of the publicity managers. These committees will formulate and recommend methods and means for their practice, and report to the chairman at as early a date as possible.

Notes.

Mr. Dunstan, manager of the Bell of Canada for Toronto, was untiring in his efforts to make the stay of the visiting managers pleasant. On Thursday they were taken on an automobile tour embracing the beautiful residence section and park system of Toronto, and on Friday they were entertained at luncheon at the National Club.

P. C. Staples and his glittering staff from the "City That Knows No Waking" so stunned Manager Builta with its in-

candescent and iridescent beauty that he proposed a general amalgamation, absorption and effacement of all circumjacent phenomena, basically similar but of a low order of luminosity. Feeney entered a gentle but firm protest in which he was cordially supported by those weltering within the Staples penumbra.

Thursday evening the party was handsomely entertained (at the individual expense of its members) by Mr. Boisseau, of Baltimore City; first at dinner and afterward at the theater. The drama witnessed was of the Blood coldling school, "O'Garra of the Royal Mounted Police." Mr. Boisseau grew reminiscent, declaring that he had seen Miss Clancy or Clabby or something of the sort play the lead years ago. This was undoubtedly true, but while we (speaking in our editorial capacity) would gladly confirm our host's statement, we are unable to do so, as we only go back as far as Carncross Minstrels and Ada Gray.

Wu Tingfang and the Telephone

In "America Through the Spectacles of an Oriental Diplomat," a new book of comment by Wu Tingfang, LL. D., late Chinese Minister to the United States, this interesting dignitary delivers himself of a whole lot of chatty remarks concerning American institutions. In a chapter entitled "American Business Methods" he has this to say about the telephone:

"Another thing inseparable from American business is the telephone. A telephone is a part of every well-appointed house, every partner's desk is provided with a telephone, through which he talks to his clients and transacts business with them. In all official departments in Washington scores of telephones are provided; even the secretary of the department and the chief of the bureau give orders by telephone. It goes without saying that this means of communication is also found in the home of almost every well-to-do family. The invention of a telephone is a great blessing to mankind; it enables friends to talk to each other at a distance without the trouble of calling. Sweethearts can exchange their sweet nothings, and even proposals of marriage have been made and accepted through the telephone. However, one is subjected to frequent annoyances from wrong connections at the central office, and sometimes grave errors are made. Once, through a serious blunder, or a mischievous joke, I lost a dinner in my legation in Washington. My valet received a telephone message from a lady friend inviting me to dine at her house. I gladly accepted the invitation, and at the appointed time drove to her home, only to find that there was no dinner-party on, and that I should have to go hungry."

The rest of the book is written in the same artless style as the above excerpt, the work being interesting more perhaps for that reason than for any great truths expressed or valuable ideas suggested. It shows the Chinese point of view very well concerning some of the things which seem cut-and-dried or matter-of-fact to us.

New Philadelphia Building

The Bell Telephone Company of Pennsylvania has let the contract for the construction of the company's new headquarters building to be located at the intersection of Arch and Seventeenth Sts. and the Parkway, Philadelphia. The building will be fifteen stories high and will cost, unequipped, including the land, approximately \$1,500,000. Two exchange units will be installed.

Chicago Telephone Company's City Exchanges.

IX. Wentworth

By G. K. Mills, Wire Chief.

The recent opening of Stewart office, which took away a portion of the telephones previously operated from Wentworth office, makes this an appropriate time to describe Wentworth. This office is also ninth in the order in which branch offices in Chicago were cut to common battery. Just before the Stewart cut Wentworth had 30,600 stations, this being the largest number of any office in the city.

In sketching the life of a man, mention only of his physical attributes would not acquaint the reader fairly with the subject. It might seem that the descriptive essentials of a telephone exchange could be fitly expressed in terms of units, tens and thousands and indeed this would be true in most cases. To him who has only a passing acquaintance with Wentworth comes the idea of bulk; of many things expressed in the superlative—biggest area; biggest exchange; biggest four-party and coin-box development; biggest a dozen other things. But these things are only the outward expression of that which impresses the worker who knows this office; that it is a living thing and that it has a personality all its own. It has always seemed so and as it has aged and grown, it has developed this individuality, not into the beautiful things of fiction, but into the obstinate and unruly fact that it is. Wentworth is famous for the amount of trouble of one kind or another that it can stir up; famous for the uncounted times that it has upset the most careful calculations of plant men, traffic men and engineers. The growth has been remarkable and this growth, coupled with the nature of the area served, has provided ample mental gymnastics for scores of telephone people.

In the Magneto Days.

The original Englewood office, as it was called, was a toll point located on the second floor at 6100 Wentworth avenue. Here the switchboard had "desk room only" in the front room of a flat. The calls were answered by a woman who occupied the flat and the board received such attention as she was able to give it while attending to domestic duties. Later the tenant of the flat moved and the space was occupied by a colored people's church. This office was opened in 1882 with a fifty-drop Gilliland magneto switchboard installed by the equipment department, J. J. O'Connell, Ralph Kavanaugh, Thomas and O. T. Freeman and W. H. Hennessey. The wires were brought to the board through a cupola in the roof, no cables being used at that time. Additions were made from time to time, as new subscribers were obtained, most of these additions taking the form of plug tobacco boxes with several drops and jacks mounted on each. After a number of boxes had been added to the board, it became necessary to increase the key-shelf capacity. This was done by the addition of a soap box on each side of the original key shelf, with the necessary connecting cords and strap keys for ringing and listening. This switchboard reached its ultimate capacity when there was no more room for tobacco or soap-box additions, in 1893, when a new office, with three 100-line tubular drop positions was opened at the southeast corner of Sixty-third street and Wentworth avenue. Here

the plant was the latest development of the telephone art and boasted several aerial cables, distributing frame and power ringing, obtained from a magneto generator belted to the shaft of a nearby mill. The office occupied a small flat and provided ample accommodations for several years. This office had several additions made to the equipment from time to time until it reached six or eight positions of switchboard and nearly 1,000 subscribers. In this exchange was connected what was probably the first two-party jack-per-station line in the world. Charles W. Mahon now in the engineering department, found it necessary to get two telephones working with different numbers on the same line. He evolved the scheme as at present employed. This caused him some grief when his "boss" learned that he had violated standard specifications, but the line continued to give service as he had connected it. When the present Wentworth exchange was cut into service at 6308 Stewart avenue, April 13, 1901 all of the two-party lines were cut over according to this scheme. The present office was cut over with about 1,000 stations into a modern common-battery lamp signal switchboard, part of which still gives good service. Cora B. Evick, now chief operator at Douglas, was chief operator in all three of the Wentworth offices. **Wentworth as a Common-Battery Exchange.**

Additions have been made to the equipment ever since the office was built and in the thirteen years just past the stations have grown from 1,000 to 30,600. This came with the coin box and party line as part of a policy of popularizing the use of the telephone. Most of the stations are on residence four-party nickel lines.

The first installation of keyless-ringing four-party jack-per-station lines took place in Wentworth about eight years ago. This method is in use now in nearly all of the offices. Another development of the art, as now found in the modern plant, first saw the light in Wentworth, this being the use of a shunted condenser in connection with four-party polarized bells. A line with this arrangement was tried out by J. J. O'Connell, F. P. Wibly, G. W. Cummings and Norman Anderson, employing resistance coils around the condenser. The experiment worked well, but was not used generally for nearly a decade. It is now the standard four-party arrangement for Chicago, with the modification of a 48,000-ohm coil instead of those first used.

The growth of Wentworth in the past thirteen years has resulted in a continuous procession of changes, rearrangements and additions to the plant, both inside and out, which has made operation and maintenance most difficult. Even underground duct lines planned for scores of years, have become filled and have required reinforcement, only to be filled again. The history of the exchange is replete with shortages of facilities of every kind, caused by unexpected and unprecedented growth.

Just before the Stewart cut-over, there were 140 positions of switchboard, the A board being one and the B boards working as four separate units, with a total of 32,200 subscribers multiple.

The power plant is of the usual type with 800-ampere charging unit. The

distributing frames are very large, particularly the main frame which extends in a straight line for ninety feet. The building, though slightly crowded and thirteen years old, is quite well arranged for telephone purposes. The roof was raised to three stories several years ago and the building extended to the rear of the lot.

Many Reports of Trouble.

One of the things in which Wentworth has shown wayward tendencies is the matter of trouble. In the early days, with extensive aerial distribution, this was manifest at all times. With the increase in stations came also an increase in the amount of underground and aerial cable, bringing down the open-wire trouble to a negligible quantity. The increased density, however, together with peculiarities of keyless ringing trunks, made the plant more sensitive to carbon trouble following lightning storms. This trouble has been frequent and heavy and has made the office famous beyond all desire. A few years ago much trouble was also experienced with high and varying differences in earth potential between different parts of the district. This made trouble of several kinds on sub-station apparatus which was connected to earth such as party-line bells, private exchange boards and coin collectors. All of these things, usually one at a time, but sometimes all at once, have combined with puzzles incident to rapid growth in giving Wentworth a decided individuality. The earth current and aerial troubles have disappeared with the removal of their most aggravating causes. With Stewart cut off and the proposed Prospect office which is to relieve the west end of the district in a year, the old office will probably have passed into history as an unruly member of the exchange family and will have "settled down to business." The growth will continue, however, and within three or four years the office will doubtless again attain the 30,000 mark in stations.

Before the Stewart cut-over four testmen and twenty outside repairmen and messengers were handling about 450 reports of trouble daily. Testing of installation and construction work required one to three testmen in addition to those on trouble. These men worked on a seven-position testboard, this equipment seeming totally inadequate after heavy storms.

The distributing framework, particularly during the May and October moving seasons, has been heavy. This has required from six to twelve men running jumpers on the frames. Every move by a subscriber requires changing of jumpers in the frames, because of the jack-per-station service.

A roster of the veterans who have at one time or another been connected with the payrolls of Wentworth would include names well known in telephone work. Many of them have had wits sharpened and judgment ripened in tussles with conditions as they found them in this exchange. To these, especially, will the old name be always of live interest and to them will memories of the old days be tinged with the mellowing color of sentiment.

Nothing to Do Till Tomorrow

Samuel Ray, a former resident of Rushville, who now lives in Cooperstown, was visiting here last week. Mr. Ray is postmaster, justice of the peace and local manager of the telephone office at Cooperstown, and in addition to his multitudinous duties is boarding himself. From a newspaper published at Rushville, Ill.

Department of Sports and Recreations

Doings of Telephone People in the Field of Athletics and Pastimes.

Commercial League—Chicago STANDING OF THE TEAMS.

June 27, 1914.

	Won.	Lost.	Pct.
Commonwealth Edison Co.	4	1	.800
Swift & Co.	3	1	.750
Chicago Telephone Co.	3	2	.600
Western Electric Co.	3	2	.600
Consumers Co.	2	2	.500
Automatic Electric Co.	2	3	.400
International Harvester Co.	1	3	.250
Illinois Steel Co.	0	4	.000

The Chicago Telephone Company team in the Commercial League is holding its place in the first division by hard fighting. On June 6th, in a game fought inch by inch, the telephone boys lost to the Automatic Electric Company, 9 to 7. The score:

CHICAGO TELEPHONE COMPANY.

	R.	H.	SH.	PO.	A.	E.
Meincke, ss.	1	2	0	1	3	0
Carney, 2b.	1	4	0	0	7	0
Driscoll, cf.	0	0	0	1	0	0
Almquist, 1b.	1	0	0	14	0	0
Johnson, 3b.	2	2	0	3	1	0
Delaney, c.	1	1	0	3	1	0
Kluth, lf.	0	0	0	0	1	0
Shannon, rf.	0	1	0	2	0	0
Nelson, p.	1	1	0	0	2	0
W. Dillon, p.	0	0	0	0	0	0
	7	11	0	25	16	0

AUTOMATIC ELECTRIC COMPANY.

	R.	H.	SH.	PO.	A.	E.
Anderson, 3b.	1	1	0	1	1	0
Freman, ss.	1	2	0	1	2	0
Schwind, 2b.	0	1	0	2	7	0
Darling, 1b.	2	5	0	13	2	0
Pitsch, cf.	1	1	0	2	0	0
Joyce, rf.	1	3	0	0	0	1
Kitlins, lf.	1	2	0	1	1	0
Keith, c.	1	1	0	6	0	0
Clark, p.	1	1	0	1	2	0
	9	17	0	27	15	1

The game of June 20th, with the Commonwealth-Edison team, was pretty much the same story. Errors were few but so were runs, and the final count stood 5 to 4 in favor of the electric light stalwarts. The score:

CHICAGO TELEPHONE COMPANY.

	R.	H.	SH.	PO.	A.	E.
Meincke, ss.	0	1	1	3	4	0
Carney, 2b.	1	1	0	4	3	0
Almquist, 1b.	1	2	0	11	0	0
Delaney, c.	1	1	0	2	2	0
Mitchell, lf.	0	3	0	3	0	0
Johnson, 3b.	0	1	0	2	3	1
Shannon, cf.	0	0	0	2	0	0
Kluth, rf.	0	0	0	0	0	0
Hooker, rf.	0	0	0	0	0	0
O'Connell, p.	1	1	0	0	2	0
	4	10	1	27	14	1

COMMONWEALTH EDISON COMPANY.

	R.	H.	SH.	PO.	A.	E.
B. Pechous, ss.	1	2	1	4	1	0
Bermeil, lf.	1	1	0	4	0	0
Molyneux, rf.	0	1	1	0	0	0
Scheenke, c.	0	1	1	3	4	0
Lavin, cf.	0	0	0	0	0	0
Brennan, 1b.	1	1	0	9	1	0
Novak, 2b.	0	1	0	5	3	0
C. Pechous, 3b.	1	0	0	1	1	1
Quan, p.	1	1	0	1	4	0
Rasmussen, p.	0	0	0	0	0	0
	5	8	3	27	14	1

On June 27th the boys found themselves and beat up a flock of runs which scattered over the three games, would have won them all and left a margin. The International Harvester Company players were the victims. The score was 20 to 1. Here are the details:

CHICAGO TELEPHONE COMPANY.

	R.	H.	SH.	PO.	A.	E.
Meincke, ss.	3	3	0	0	2	0
Campion, rf.	1	2	1	1	0	0
Mitchell, lf.	4	0	0	0	0	0
Almquist, 1b.	3	2	0	10	0	0

Johnson, 3b.	3	3	0	0	0	0
Delaney, c.	2	1	0	10	0	1
Shannon, rf.	0	1	0	0	0	0
Meagher, 2b.	2	2	0	0	4	0
Savage, p.	1	1	0	0	2	0
O'Connor, p.	0	0	0	0	0	0
Hooker, p.	1	1	0	0	0	0
	20	16	1	21	8	1

INTERNATIONAL HARVESTER CO.

	R.	H.	SH.	PO.	A.	E.
Kastner, rf.	0	1	0	0	0	0
Conway, 3b.	0	0	0	0	1	0
Kell, ss.	0	0	0	1	1	2
Davy, lf.	1	1	0	1	0	0
Butzow, cf.	0	0	0	1	0	0
Kirsch, 1b.	0	0	0	13	0	0
Jacobson, 2b.	0	1	0	0	7	3
Hanson, c.	0	1	0	5	2	1
English, p.	0	0	0	0	1	2
Adams, p.	0	0	0	0	0	2
	1	4	0	21	12	10

Interdepartment League— Chicago

STANDING OF THE TEAMS.
June 27, 1914.

	Won.	Lost.	Pct.
Edgewater	4	0	1.000
Central Installation	3	0	1.000
North Installation	3	1	.750
North Construction	2	2	.500
Engineering	2	2	.500
Equipment	2	2	.500
Commercial	1	3	.333
Auditing	1	3	.250
Traffic	1	3	.250
Suburban Commercial	0	4	.000

Games of June 20th.

Central Installation, 8; Auditing, 7.
N. Construction, 9; Engineering, 0.*
Edgewater, 7; Commercial, 6.
Equipment, 20; Sub'n Com'l, 11.
N. Installation, 15; Traffic, 6.
*Forfeited.

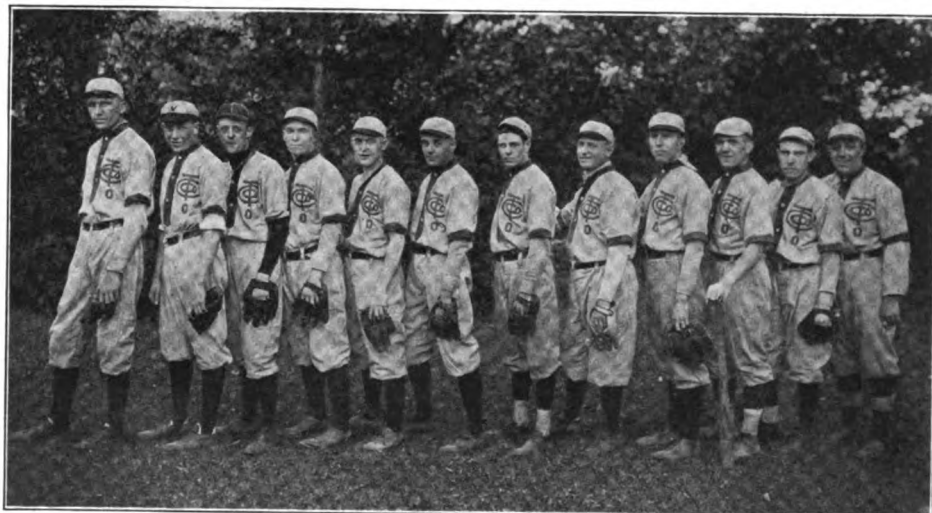
Games of June 27th.

Central Installation, 7; N. Construction, 5.
Equipment, 15; Commercial, 9.
N. Installation, 13; Sub'n Com'l, 5.
Engineering, 7; Auditing, 1.
Edgewater, 16; Traffic, 9.

Plant Department League— Chicago

STANDING OF THE TEAMS.
June 27, 1914.

	Won.	Lost.	Pct.
South Installation	5	0	1.000
Nights	6	1	.857



OAKLAND EXCHANGE BASEBALL TEAM.

Champions Chicago Plant Department League, Season 1913. Left to Right: Bontemps, Kleidisch, Anderson, Dubach, Boyle, Webb, Fisher, Moline, Fox, Manager, McElligott, Conboy, Pursell.

Oakland	3	1	.750
Construction	4	2	.667
Plant Accountants	2	4	.333
Wentworth	1	4	.200
Long Lines	1	5	.167
Harrison	1	6	.142

Games of May 30th.

Oakland, 13; Plant Accountants, 7.
Nights, 11; Long Lines, 2.
Wentworth, 14; Harrison, 13.
South Installation, 19; Construction, 3.

Games of June 6th.

Plant Accountants, 13; Wentworth, 5.
South Installation, 13; Harrison, 0.
Nights, 7; Construction, 4.
Oakland, 9; Long Lines, 4.

Games of June 13th.

Construction, 11; Long Lines, 6.
Nights, 14; Harrison, 7.

Games of June 20th.

Nights, 14; Wentworth, 9.
Construction, 24; Accountants, 7.
Long Lines, 9; Harrison, 0.
South Installation, 7; *Oakland, 5.
*Protested.

Games of June 27th.

South Installation, 5; *Nights, 3.
Harrison, 8; Accountants, 7.
*Protested.

The Oakland-South Installation game of June 20th was protested by Oakland on the charge that the umpire misinterpreted Rule 51. This protest was sustained by the arbitrators, and it is ruled that the game shall not count in the standing and that it shall be replayed before September 19th.

The protest of the Nights of their game with South Installation on June 27th has not yet been considered.

American Giants' Park has been hired for September 19th and the field day will be held there.

Plant Department League— Detroit

The Plant Department League of the Michigan State Telephone Company in Detroit comprises four clubs, Central, North, East and West, taking in plant men from the twelve Detroit offices. The Central comprises Main, Cherry and Cadillac offices; the North, the North, Hemlock and Walnut; the East, the Ridge East and Hickory; and the West, Cedar

and Grand. Standing at this report follows:

Team	Won.	Lost.	Pct.
Central	2	1	.666
North	2	1	.666
West	2	1	.666
East	0	3	.000

The league was organized last Apr. 1. Martin Ewald is president and A. L. Tyler secretary and treasurer.

Good Ball at Rock Island

An exciting game of baseball was played at the Rock Island baseball park May 16th between the plant employees of Moline and Rock Island exchanges, the

ful speed, allowing only nine hits. The score by innings:

	R.	H.	E.
Rock Island.....	0	4	1
Moline	0	4	2

Batteries: Rock Island, Willhite and Schultze; Moline, Reynolds and Ellinghouse; umpire, District Manager A. J. Beverlin.

A very hotly contested game was played at the Rock Island baseball park between the Central Union telephones of Rock Island and Moline and the Iowa Telephone of Davenport on Memorial Day. The score by innings:

	R.	H.	E.
Iowa Tel.....	0	0	0
C. U. Tel.....	0	1	3

Batteries: Iowa Telephone, Edwards, Pel-

to eight runs. The commercial department furnished the music in the bleachers. The line-up was as follows: Catcher, Arthur Fetting; pitcher, Henry M. Turkish; first base, Peter Hall; second base, Edward Mintline; third base, C. C. Corry; short stop, Louis Severson; right field, Ed Cosgrove; left field, Walter Falkenhagen; center field, Walter Smith.

Baseball at Indianapolis

The auditing and plant departments at Indianapolis recently played a game of major league ball at Broad Ripple Park. Frank Wampler, as umpire, made such a



FIRST ANNUAL CONCERT OF THE CHICAGO TELEPHONE GLEE CLUB.

This is the audience which listened to the first annual concert of the Chicago Telephone Glee Club, in the men's club rooms on the eighth floor of the Bell Telephone Building, Chicago, Monday evening, June 8th. The members of the glee club are grouped in the background of the picture.

The night was one of the scorching hot ones which ushered in summer several weeks too early, but the enthusiasm of the crowd was nevertheless intense. The glee club rendered five selections, which were interspersed with solos and duets. G. L. Adkins, Sherman Orwig, R. W. Sullivan, Sherman Stenle and F. M. Carey were the headliners. Mr. Steele and Mr. Carey are members of the orchestra and gave piccolo and violin solos, respectively. Messrs. Adkins and Orwig sang solos and Messrs. Orwig and Sullivan, duets, the latter accompanied by Oliver Johnson.

J. S. Fearis is director of the glee club and R. R. Canterbury, accompanist.

score resulting nine to eight in favor of Moline. The game was a hotly contested pitchers' battle from start to finish. Pitcher Willhite, formerly of the famous "Milan Tigers," held the Moliners to eleven hits, while Reynolds had the Rock Island boys amazed at his wonder-

ton and Clouda; Central Union Telephone, Willhite, Vermillion and Ellinghouse.

The features of the game were a three-base hit by Reynolds in the eighth inning, scoring Ellinghouse and Franks, Reynolds being called out for cutting first base.

Edwards, of the Iowa Telephone, made two two-base hits at the critical time, one of which, in the eighth inning, scored Clouda and Thomas.

This is the first game between the teams this year, but a very good game is expected at the employees' annual picnic to be held soon.

Victory at Saginaw

The supremacy of the Bell System was once more clearly demonstrated Sunday, June 14, at Hoyt Park, Saginaw, Mich., when a team composed of nine stars of the local plant department of the Michigan State Telephone Company defeated the Valley Home Telephone Company's team in a nine-inning game. The score was 9 to 8, the eight runs being given the Valley team merely for consolation and to encourage future games. Stockman Henry M. Turkish pitched a brilliant game, striding out sixteen men in seven innings and giving only three hits. He was succeeded by Testman Art Fetting in the eighth inning, who held the score

record that the big leagues are reported to be after him. He had a large revolver stuck into his chest protector and whenever a dispute arose on the field he proceeded to pull his gun and quell the mutiny. The picture on the next page shows Mr. Wampler in his regalia with his big gun in prominent display. The final score was 10 to 9 in favor of the plant department. The next big game



CENTRAL UNION TELEPHONE COMPANY BASEBALL TEAM AT ROCK ISLAND, ILL.

Standing, left to right—Reynolds, ss.; Vermillion, p.; Baker, 2b; E. L. Mitchell, district plant chief.

Second row—Franks, 3b; Purcell, r.f.; Schultze, 1b.

Front row—Gelger, c.f.; Ellinghouse, c.; Willhite, p.; DeFrates, l.f.



IOWA TELEPHONE COMPANY BASEBALL TEAM AT DAVENPORT.

Standing, left to right—Stafford, 3b; Klouda, c.; Elwell, 1b; Lamp, c.f.; Pelton, p.; Ahlgren, l.f.

Sitting—King, 2b; Thomas, r.f.; Samberg, ss.

was between the plant department on one side and a mongrel team made up of the commercial, engineering and traffic departments on the other side. Mr. Wampler acted as umpire the early part of the game and E. L. Hamlin, district plant



FRANK WAMPLER,

Who Umpired a Strenuous Game at Indianapolis.

chief, the later. The score was 21 to 20 in favor of the plant. It was generally understood that Mr. Hirst and Mr. Wampler each hit the ball once but had to get someone else to do the running for them. The young lady employees served lunch in the park and "rooted" for their favorite teams.

Team at Eau Claire

The Wisconsin Telephone Company has entered a baseball team in the Commercial League of Eau Claire. The team is composed of members of the plant and commercial departments. District Plant Chief J. V. Young has been elected manager, and from the showing made in the several games held so far he has shown himself as capable in the baseball field as he is in the telephone field. Three games have been played up to date, the team having won all. Following is a list of the members of the team and their respective positions: Culberston, first base; Richter, second base; Hovland, third base; Borgen, catcher; Burns, left field; Burgen, center field; Towne, right field; Fletcher, short stop; Connolly, pitcher; Stang and Rueth, utility men.

Maintenance Department Outing

The maintenance department employees of Chicago will hold their second annual outing at Glenwood Park on Sunday, August 23rd. Committees have been appointed to arrange for the usual amusements and sports as well as a few unusual ones. Employees of other departments are invited to enjoy a pleasant day's outing with the maintenance boys.

At the first maintenance employees' outing held late last summer at Fox River Park, Aurora, over 1,000 people were present and the affair was highly successful.

The trip will be made this year via the Aurora, Elgin and Chicago third rail line, directly to the park. Everybody knows Glenwood Park is one of the prettiest parks along the Fox River, and the maintenance men hope for a big crowd to help

make this outing even more enjoyable than the last one.

W. J. Plaskett will be in charge of the outing, G. K. Mills is secretary and I. W. Boylan, treasurer. The following are the committee chairmen: Printing and publicity, R. L. Altman; transportation, P. D. Stobbe; amusement, F. E. Judson; dancing and music, W. H. Dundie; tickets, C. L. Norton; grounds, C. A. Stone.

Interdepartment Field and Track Meet

Started in a drizzle of rain on the afternoon of June 13th and continued under clear skies on June 20th, the last event of the Interdepartment Track and Field Meet of Chicago telephone employees was finally concluded Sunday morning, June 28th, when D. C. Robertson, of the construction department, hurled the hammer ninety feet, flat, and was adjudged victor in the hammer throw. A. B. Clark, of the maintenance, and C. B. Thiel, of the commercial, were second and third re-

two seconds; J. T. Chandler won one first and C. B. Thiel, one third. These winnings made up the forty-six points which gave the commercial team the victory. Following is the score of the meet in detail:

One-hundred-yard dash: D. M. Swift, auditing, first; T. J. Burke, traffic, second; G. H. Corbet, auditing, third. Time, :10 4/5.

Two hundred and twenty-yard dash: W. H. Ricker, commercial, first; G. H. Corbet, auditing, second; D. M. Swift, auditing, third. Time, :25 4/5.

Four hundred and forty-yard dash: W. H. Ricker, commercial, first; G. H. Corbet, auditing, second; Roy Day, maintenance, third. Time, :55.

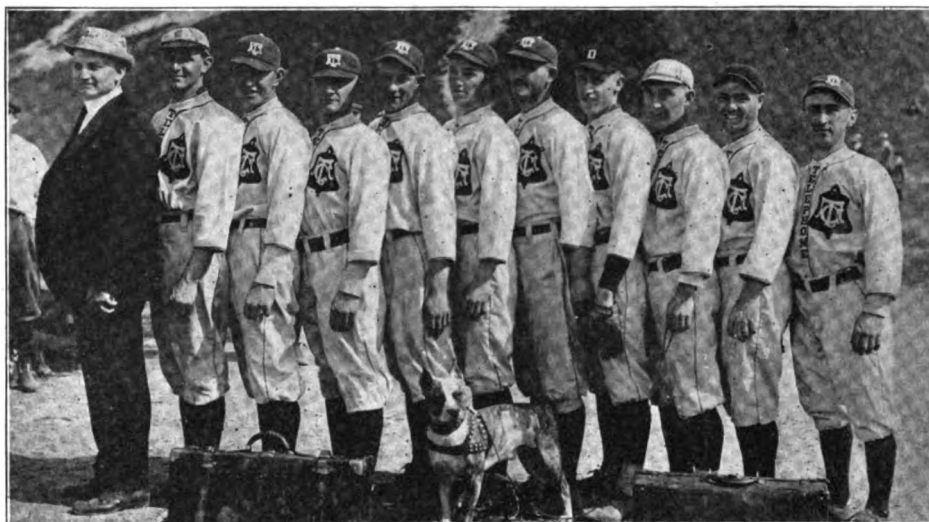
One-half-mile run: Roy Day, maintenance, first; A. Smart, commercial, second; J. H. Brown, maintenance, third. Time, 2:40 3/5.

One-mile run: George Speigelhauer, maintenance, first; Vernon Brooks, maintenance, second; J. H. Cherry, construction, third. Time, 5:07 1/5.

Two-mile run: W. H. Ricker, commercial, first; George Speigelhauer, maintenance, second; Roy Day, maintenance, third. Time, 13:39 2/5.

Ninety-yard high hurdles: B. J. French, maintenance, first; J. H. Brown, maintenance, second; J. H. Barry, auditing, third. Time, :16 4/5.

Two hundred and twenty-yard low hurdles:



CLEVELAND TELEPHONE TEAM IN TECHNICAL LEAGUE.

spectively. This event had been postponed from the programs of June 13th and June 20th, on account of the space demanded for the throws, the use of which could have interfered with the other events.

The commercial team won the meet with a total of forty-six points. The maintenance team was second with forty points, the construction third with thirty-one, the auditing fourth with twenty-seven and the traffic fifth with nineteen.

Although the damp weather made things somewhat uncomfortable for the contestants, the large crowd of adherents was entirely in the dry and prepared to root with enthusiasm when the Chicago Telephone band struck up a lively quickstep at Gunther Park on the afternoon of June 13th to open the meet. The number of teams entered, five, made it impossible to finish in one afternoon and at 5:30 it was decided to postpone the unfinished events until the following Saturday and pull them off in connection with the Commercial League ball game on that day. The program was accordingly finished on June 20th with the exception of the hammer throw, as noted above.

The commercial team, winner, made a record of seven firsts, three seconds and two thirds. W. H. Ricker won three firsts; R. E. Lanestrem won two firsts and one second; Lewis Livingston won one first and one third; A. Smart won

M. J. Carney, Jr., construction, first; R. E. Lanestrem, commercial, second; S. B. Boynton, construction, third. Time, :30 3/5.

High jump: R. E. Lanestrem, commercial, first; A. Smart, commercial, second; S. B.



G. A. FRITZ.

In this picture the Detroit Northern area wire chief was caught at the moment the Western area scored the sixteenth run in the game of June 6th.

Boynton, construction, third. Height, five feet, two inches.

Standing broad jump: S. B. Kirk, traffic, first; W. H. Hutter, maintenance, second; S. B. Boynton, construction, third. Distance, nine feet, seven inches.

Running broad jump: R. E. Lanestrem, commercial, first; S. B. Boynton, construction, second; H. L. Daughters, auditing, third. Distance, eighteen feet, six and one-fourth inches.

Shot put: Lewis Livingston, commercial, first; S. B. Kirk, traffic, second; Paul Wendorf, auditing, third. Distance, thirty-three feet, three inches.

Hammer throw: D. C. Robertson, construction, first; A. B. Clark, maintenance, second; C. B. Thiel, commercial, third. Distance, ninety-six feet.

Discus throw: Paul Wendorf, auditing, first; S. B. Kirk, traffic, second; J. H. Barry, auditing, third. Distance, eighty feet, seven inches.

Fifty-six pound weight: A. G. Pashby, traffic, first; A. B. Clark, maintenance, second; Lewis Livingston, commercial, third. Distance, sixteen feet, three inches.

Pole vault: George Spelgelhauer, maintenance, and T. L. Ralder, construction, tied for first; M. J. Carney, Jr., construction, third. Height, seven feet, six inches.

Javelin throw: J. T. Chandler, commercial, first; D. C. Robertson, construction, second; S. B. Boynton, construction, third. Distance, 106 feet, nine inches.

One-half mile relay: Won by auditing team, consisting of W. R. Reynolds, J. H. Barry, G. H. Corbet and H. L. Daughters. No other contestants. Time, 1:47 3/5.

Tug of war: Won by construction team, consisting of William Jannenga, G. H. Higgins, James Egan, Albert Klunk, John Anderson, Edward Prindiville. No other contestants.

Chicago Commercial Tennis League

Tennis is an old game but as a feature of the recreations of Chicago Telephone Company employes is somewhat new. Perhaps this accounts for the negative results of the first attempt of the telephone players in the Chicago Commercial League, which took place on the Sears, Roebuck and Company courts June 25th.

In both singles and doubles the Sears-Roebuck men were victors. Schneidan and Layton, in the singles, succeeded in taking one set each, but were unable to repeat, the final reckoning therefore favoring their opponents.

Victories at Riverton

The Central Union Telephone Company ball team played the Riverton ball team at Riverton, Ill., Sunday, May 17th. The game was won by the Central Union boys, the final score being 7 to 4. Batteries: Central Union Telephone Company, Gordy and Barber; Riverton, Spoon and Hewitt.

A return game was played at Riverton, Ill., Saturday, May 23rd. The Central Union team again won the game by a score of 20 to 3. Batteries: Central Union Telephone Company, Jones and Barber; Riverton, Watson, Spoon and Hewitt.

Musical Lecture

At the Monday luncheon at the Chicago headquarters building, June 15th, W. H. Humiston, secretary of the Philharmonic Society of New York, gave a short lecture on Richard Wagner and the Ring of the Nibelungen. This was illustrated by lantern slides and piano interpretations of some of the measures. Mr. Humiston also gave a short account of the work of Edward Mac Dowell and closed by playing two of his compositions.

The lecture was repeated by request Wednesday noon for the benefit of the women clerks in the building and again at 5:30 the same afternoon for the operating force.

Mr. Humiston is a brother of John M. Humiston, facilities engineer, Chicago.

Gloom in Mansfield

There was little comfort to members of the Mansfield Checker Club, of Mansfield, Ohio, in the outcome of the long-distance checker contest played with the Bell Telephone Chess and Checker Club, of Chicago on the night of July 7th. Chicago won the first and third games and the second was a draw.

The novelty of a checker game by long-distance telephone attracted a large crowd to the eighth floor of the Telephone Building in Chicago, and among the visitors were a number of the best checker players in the city, members of other clubs.

A circuit was put up between Chi-

progress members are to play a maximum of forty games, no more than two with any one opponent. This test will enable the club to pick out its representatives for the important matches with other clubs which are contemplated for the winter season.

Cook County Press Club

Following the precedent of former years, the Cook County Press Club, composed of newspaper publishers in Chicago and suburbs, had its annual outing on June 13th and 14th. Because of the success that had attended these events of former years, the club planned a more elaborate trip this year, spending two



CENTRAL UNION BASEBALL TEAM, SPRINGFIELD, ILL.

Top row, left to right: Sawtell, lf; Jones, p; Barber, 3b; Jones, cf.

Middle row: Eck, 1b; Lumsden, ss; Farney, 2b.

Bottom row: Robinson, c; Gordy, p; Moore, rf.

cago and Mansfield, and this was ready at 8:30. Both clubs were waiting and play started immediately. The distance by wire is about 300 miles and the transmission was perfect. The three games occupied about two hours.

Harry Lieberman, of the plant department played at the Chicago end and A. Sturgess, a well known Ohio checker expert represented Mansfield. As soon as a move was made it was reported over the wire and posted on a large board. This enabled the watchers to follow the games.

Mr. Lieberman clearly showed his superiority over his Buckeye opponent by taking the first and third games with ease. The second developed some complications and was declared a draw after about an hour's play.

On June 10th Mr. Lieberman played simultaneous checker games with fourteen members of the telephone club and defeated thirteen of them. One game was drawn.

A chess tournament with the Western Electric company's club has been arranged for the evening of July 21st. Some of the telephone chess players are developing into experts and it is confidently expected that the Western Electric visitors will get the shock of their lives. At the meeting of July 7th several new members were received and the club now numbers more than 100. The rules permit the playing of games any place convenient to the members. Blank forms for certifying the results will be provided by the committees.

In the summer tournament now in

days on a visit to the Dells of the Wisconsin river at Kilbourn, Wis. About fifty members and their families participated in the outing.

A special train left the Union station in Chicago at ten o'clock on the morning of June 13th. Upon arrival at Kilbourn the club was met by G. H. Crandall, who represented the business interests in Kilbourn and who delivered the keys to the Dells on behalf of the city. A special boat had been chartered for the use of the Press Club for a trip to all the points of interest along the river near Kilbourn.

One of the features of the outing was the surrender on Sunday morning of the office of *The Events*, the local newspaper at Kilbourn. Members of the club cooperated in the issue of a special number of the paper to commemorate the visit of the publishers.

At a banquet given by the citizens of Kilbourn Sunday afternoon the keys to the Dells were recalled by the local committee, who expressed their appreciation of the Press Club's visit.

Real Results

C. W. Cornick, a Jacksonville subscriber representing the Carlton Dry Goods Company of St. Louis, had occasion to make use of Bell toll lines recently. Mr. Cornick received word from his house of an increase in price of a certain line of goods. He immediately called up his trade by long distance, placing sixteen calls, and had talked on all of them within one hour. The net result was: Sales, \$1,600; cost, \$3.60.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

Congress of Women's Achievements

Telephone girls of Chicago and their work was the subject of an unusually fine exhibit by the Chicago Telephone Company at the Coliseum, June 13th to 20th. The exhibit was a feature of the Congress of Women's Achievements, held in connection with the Biennial Convention of Women's Clubs, which centered the eyes of the world on Chicago during ten days from June 10th to 20th.

The Congress of Women's Achievements, as the name implies, was an exposition exclusively of the product of women's craft, invention or labor. The exhibits ranged from an airship in which a daring aviatrix made flights over the roofs of neighboring skyscrapers and the expanse of Grant Park, to paintings, sculptures and dainty art objects wrought by girl students of the schools and universities.

Rendering a service in which women's work plays so important a part, the Chicago Telephone Company was invited to furnish an exhibit. In devising the display it was considered appropriate to show the telephone operator's surroundings, both at her work and at recreation.

The exhibit showed a typical operators' rest room, being a replica of that to be found in any first-class office. The rest room occupied the entire booth, and was fitted with standard rug, chairs, couches, table, desk and other furniture, all in leather trimmed oak. It looked comfortable and was comfortable, in fact it was the most inviting and restful looking place in the Coliseum.

The work of the telephone girl was shown photographically on two large glass transparencies one on each side of the room, conveniently visible from the exposition aisle toward which they faced. These transparencies were series of colored photographs showing the daily routine of the telephone operator. Each picture represented a work or recreation period, and each separation between the pictures of work periods represented a fifteen-minute rest interval. These details were explained to the visitors by the attendants.

Souvenir postcards and blue bells were distributed to a large number of people. The pamphlet on the welfare work of the Bell companies was also handed to several thousand visitors, with a view of

correcting erroneous preconceptions of the life and work of the operator.

The location of the Chicago Telephone Company booth, almost in the center of the big hall, was most fortunately chosen. It gave visitors a good opportunity to see the various exhibitions which were given on the stage and to hear the concerts.

The telephone booth was visited by more people probably than any other in the entire congress.

The majority of the visitors were interested in the pictures, thought the telephone system was wonderful and seemed

exchanges. He said, "That is not necessary; I visited the World's Fair and saw the operators at work." He was told that the World's Fair equipment was entirely different from that in use to-day, and that he would find it well worth while to make a visit now.

Mrs. Ella Flagg Young, superintendent of the Chicago public schools, was one of the notable visitors at the booth and Mrs. Rohrer, almost equally well known, expressed great satisfaction on finding a comfortable chair in a place where she could rest for awhile.

The artistic arrangement of the booth was largely the work of Mary E. Casey, chief clerk in the traffic department. As shown in the picture, the scheme of decoration conformed to that of the hall in general, upon which great pains had been spent by the women promoters of the congress. Mrs. Hyatt, Mrs. Dewhurst and Miss Kohlsaat were on duty at the exhibit most of the time, and took turns explaining the transparencies to the visitors.

The Telephone Company's exhibit was an unqualified success, and its lesson will undoubtedly be productive of large returns in the better understanding which it gave the public of the operator's duties and surroundings.

It had been arranged that Mrs. Dewhurst and Mrs. Hyatt should give illustrated lectures in the south hall of the Coliseum, describing additional interesting features of telephone work, but on account of the comparatively small number of visitors, these, with other educational features scheduled as adjuncts to the congress, were cancelled.

Motorman's Little Joke

A crowd of Chicago operators were on a Halsted street car recently, when an accident ahead stopped this car and several others which stood in a line. One of the girls began amusing the crowd by pressing the push button which signals the motorman. The motorman put his head in the door and said:

"Your party does not answer. Call a little later."

Going Some

"Hello, Wells Fargo Express?"

"Yes."

"Send a man over right away."

"He's on his way."

"Well, tell him to hurry up."



CHICAGO TELEPHONE EXHIBIT IN CONGRESS OF WOMEN'S ACHIEVEMENTS.

pleased to have the opportunity to learn something about the business. Numbers of young girls expressed their intention of applying at the school for employment.

Some inquired if the work affected either the hearing or the voice and a good opportunity was afforded to those in charge to dispel this error from the minds of a number of people. The parents and relatives of operators were among the most interested of the visitors and many made themselves known. "My daughter works at — office and they treat her just fine," was a remark frequently heard, sometimes varied with "she likes it so much."

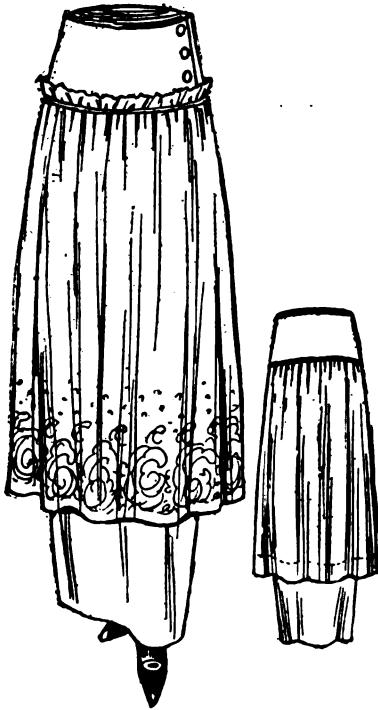
One evening when a group of ladies and children crowded around, there was an excited exclamation, "Ach look, dat vas Humboldt—right near us," and immediately the greatest interest was shown, and the pictures were closely scanned for friends who worked at Humboldt.

A man who wanted to know how his telephone number, 751, could be on the same line with 5996, after having the problem solved for him and the picture explained, was invited to visit one of the

FOR THE GIRL WHO SEWS

TWO-PIECE SKIRT WITH POPULAR RUSSIAN TUNIC

The long straight tunic is one of the newest and smartest. This one can be made of flouncing and of material with equal success. In the larger view, embroidered marquisette is arranged over crepe de chine and the upper edge of the tunic is finished with a little upstanding frill. In the smaller back view, the tunic and skirt are both of chiffon taffeta and women will be quick to see that there are



8312 Two-Piece Skirt, 22 to 30 waist.

a great many other possibilities. A flounce of lace over silk is not alone handsome, it also converts a partly worn gown into a new one. Among seasonable materials are a great many embroidered cotton crepes and one of these used for the tunic with the under skirt of plain material would make an exceedingly smart effect while the value of the tunic or flounce of contrasting material to be

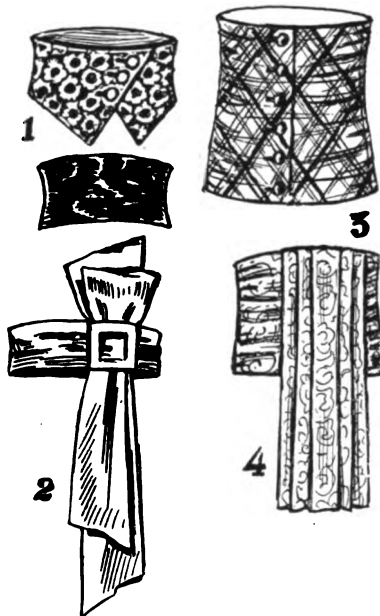
arranged over the skirt that begins to show signs of wear is apparent at a glance. For treatment of this sort, any pretty harmonizing material can be used for the flounce so long as bits of the same are carried into the blouse as trimming to give the costume idea.

For the medium size, the skirt will require 3 yards of material 27, 5½ yards 36 or 44 inches wide, with 2¼ yards of bordered material 32 inches wide or 2½ yards of plain material 27 or 36, 1½ yards 44 inches wide for the tunic. The width of the skirt at the lower edge is one yard and twenty-two inches.

The pattern of the skirt, 8312, is cut in sizes from 24 to 32 inches waist measure. It will be mailed to any address by the Fashion Department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon on this page.

FASHIONABLE GIRDLES ARE IMPORTANT

The girdle is all-important just now. In a sense, it is only an accessory yet fre-



quently it means the smartness of a costume. Again it can be used to give the touch of beautiful color that is so impor-

tant and so interesting. Here are four of the newest and prettiest. No. 1 gives the waistcoat suggestion that is charming with many costumes and it can appropriately be made from brocaded velvet and silk and similar rich materials. No. 2 is just a simple little girdle with an upstanding bow and ends and it is very pretty made either of silk or of ribbon. No. 3 is fitted to the figure, giving the very deep line above and below the hips liked by many women. It is peculiarly good for the costume of two materials. No. 4 is only No. 3, a little shorter and with sash ends. None of these girdles means any difficulty in the making and they are all in the height of style. Silk, velvet and ribbon all are used for their making.

For the medium size, No. 1 will require ¾ yard of material 27, ¼ yard 36 or 44; No. 2, 2¼ yards of ribbon 6 inches wide; No. 3, ¾ yard 27 or 36, ½ yard 44; No. 4, 1½ yards 27, ¾ yard 36 or 44 inches wide.

The May Manton pattern of the girdles, 8062, is cut in sizes from 22 to 30 inches waist measure. It will be mailed to any address by the Fashion Department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon on this page.

ETON COAT PERFORATED FOR SHAPED BACK

Short coats make the rule of the season and here is one of the very latest models with a collar that stands away from the neck edge, which feature is an all-important one. The little coat is made in Eton style, but it includes vest portions that are new and different. Since this is a season of wonderful trimming materials, such a model is especially valuable. Incidentally, it may be said that there are only under-arm seams and so



8197 Eton Coat, 34 to 42 bust.

PATTERN COUPON

Fashion Department, BELL TELEPHONE NEWS,
212 West Washington St., Chicago, Ill.

Enclosed find.....cents in 2-cent stamps for which please send me patterns listed below:

No.....Size.....

No.....Size.....

The price of each pattern shown in this issue, to employees of the Bell System, is six cents when order is accompanied by this coupon. Write name and address, and number and size of patterns plainly. Enclose six cents in 2-cent stamps for each pattern ordered.

Name

Address

City or Town.....

State

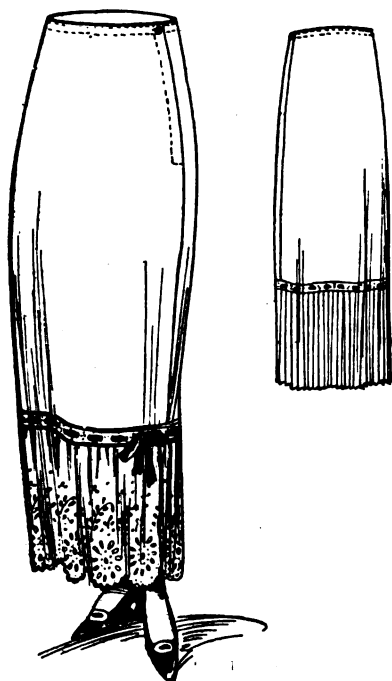
little labor required for the making that the smart little garment comes within easy reach.

For the medium size, the coat will require $2\frac{1}{2}$ yards of material 27, $1\frac{1}{2}$ yards 44 or 52 inches wide, with $\frac{1}{4}$ yard 27 inches wide for the trimming.

The pattern of the coat, 8197, is cut in sizes from 34 to 42 inches bust measure. It will be mailed to any address by the Fashion Department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon on this page.

TWO OR THREE-PIECE PETTICOAT

No petticoat gives such perfect satisfaction as the one made on similar lines to those found in the skirt to be worn over it. This one can be cut in two or three pieces and, consequently, it means very few seams. It is without fullness over the hips and of just the correct width to fill present needs. It can be made of silk with a plaited frill or it



can be made of silk with simply an underfaced edge. It can be made of cambric and the like with the lower edge embroidered or trimmed with a frill. The two-piece skirt includes only two seams, the three-piece skirt three seams. The latter is preferred only when narrow material is used. The plain skirt with embroidery shown in the small view is especially attractive. The treatment in the large view is well adapted to silk.

For the medium size, the petticoat will require $2\frac{1}{2}$ yards of material 27, 36 or 44 inches wide, with $1\frac{1}{2}$ yards 27, $1\frac{1}{2}$ yards 36, $\frac{1}{4}$ yard 44 inches wide for the plaited frill, or $2\frac{1}{2}$ yards of embroidery 6 inches wide for the frill, as shown in the back view, $1\frac{1}{2}$ yards of insertion.

The pattern of the petticoat, 8028, is cut in sizes from 22 to 30 inches waist measure. It will be mailed to any address by the Fashion Department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon on Page 16.

Exchange of Exchanges

Zion City, Ill.:

Operator: "Number please?"

Subscriber: "This is the barn, give me the house."

The wire chief and his helper were out on trouble. Just as the helper was "hiking" a pole, two small boys came along. First boy: "There goes the telephone company up a pole." Second boy: "Yes, but who is the kid on the wagon." It was the wire chief.

Belmont, Chicago:

A subscriber complained of a bell ringing by mistake a second time. Before the operator had time to reply the subscriber said: "Well, do you want to be excused again?"

Cleveland, Ohio:

Subscriber: "Operator, give me North 2864."

Operator: "That number has been changed to Prospect 708."

Subscriber: "Operator, I do not want a street number, I want a telephone number."

Lawndale, Chicago:

A subscriber had reported a transmitter mouthpiece broken. The repair clerk said: "All right, I will mail you a new one." Subscriber asked: "Shall I hold the line?"

Douglas, Chicago:

Operator, to student on second day: "How are you getting along?"

Student: "Fine, I had two lamps on my board today, and only one yesterday."

Gary, Ind.:

Operator: "Please refer to your directory."

Subscriber: "The baby tore it up."

From the Hotel About 6 a. m.:

Operator: "Number, please."

Subscriber: "Excuse it, please, I was dustin' the telephone."

Lowell, Ind.:

Subscriber: "3-0-7."

Operator: "Thr-r-r-33 0-7?"

Subscriber: "Operator, please, oh please, smooth the wrinkles out of that three."

Heard at the Information Desk:

Subscriber: "Do we get Hobard through our book here?"

Information: "No you get it from long distance."

Since the New Black Plug:

Information: "What number are you calling, please?"

Subscriber: "2-4-9-9. Is Smith there?"

Information: "2-4-9-9 has been taken out."

Subscriber: "Oh, Smith has gone out; thank you."

Subscriber: "What is the rate to Rothschild's?"

Long distance: "Twenty cents for three minutes."

Subscriber: "And the rate to Chicago?"

Long distance: "The same."

Subscriber: "Oh, I thought it would be less, as Rothschild's is on State street."

Waukegan District:

Information operator: "This is information!"

Subscriber: "Mr. Mason? Great Scott, I don't want you."

Subscriber: "Say, central, haf you some vay you could lift up my receiver, so I can listen if the children is crying. Dey vas asleep when ve left and it is raining so hard now vot I can't go home."

A new lineman wanting the operator to ring on the reverse number, said: "Operator, ring me on the other side."

Highland Park, Ill.:

Operator, entering on a half connection: "Waiting, waiting, through?"

Subscriber: "Is that you, May?"

Operator: "Excuse it, please, the party who called has disconnected."

After an interval of about two minutes the operator received the signal on the other line.

Operator: "Number, please."

Subscriber: "Is that you, Annie? I got caught in the hook."

Libertyville, Ill.:

A Swedish girl a short time in this country was using a public pay station.

Operator: "Your time is up."

Subscriber: "I don't know." After waiting the time allowed the operator said again: "Your time is up."

Subscriber: "Oh, I guess it's eight o'clock, vat you think Central always butt in for the time."

Eleanor Camp Opens

The Eleanor Association opened its camp on Lake Geneva, June 27th, with a special excursion from Chicago. This camp is essentially for the young women employed and will be open until September 1st, affording to each guest one or two weeks of recreation and out-door life. The grounds are ideally situated, having the advantages of both woods and lake, and the addition of a tennis court this year lends one more attraction to the open air sports. The little colony of tents, together with the roomy dining hall affords ideal accommodations for over a hundred guests.

Girls who have spent vacations at the camp in previous years are loyal advertisers, and if the enthusiasm of the opening days is an index for the future, July and August will find the Eleanor Camp filled to its capacity.

If any girl is interested in learning further of this opportunity, the camp secretary at Central Eleanor, 37 South Wabash ave., Chicago, will gladly answer any questions.

Over the Telephone

"Hello! Thatchoo Kit?"

"Sure. Sill, ain't it?"

"Betcherlife! Whenja gitback?"

"Smorning; whenjoo?"

"Lil'wllago. Javvagoodtime?"

"Uh-huh."

"Wherja gokit?"

"Sconsun. Werjoo?"

"Mishgun; jever go?"

"Javvanyfun?"

"Uh-huh. Lots. Wenre yuh cummin over?"

"Safnoon."

"Srite? Well, slong."

"Slong."—Exchange.

As Heard in Butte

Wearly Mike (at the telephone)—Say, kin I talk to Mr. McAfee?

Central—What is his number, please?

Wearly Mike—Wot! Is he pinched again?—*Mountain States Monitor*.

Brief News Notes from the Field

Items of Interest to Bell Telephone Employees Gathered from All Parts of the Territory

Chicago Division

Mrs. F. E. Dewhurst, G. W. Cummings,
Correspondents

Service Standing

The following is the place position of the offices for May:

First.....Lincoln
Second.....Canal
Third.....Main
Fourth.....Central
Fifth.....Wabash

Following is the place position of the offices for the month of June:

First.....Calumet
Second.....Main
Third.....Harrison
Fourth.....Canal
Fifth.....West

Neighborhood.

First.....South Chicago
Second.....West Pullman
Third.....Austin

Suburban Promotions

Aurora, M. Lindenmeyer, evening chief operator to assistant chief operator; A. Lindenmeyer, supervisor to evening chief operator.

Hammond, M. Moran, assistant chief operator to chief operator; E. Dremstadt, op-



NOT MAD AT ANYBODY.

Misses Hayes and Mears, two Waukegan toll operators, snapped in front of the office

erator to chief toll operator; E. Doeblor, operator to assistant chief operator; N. Trafley, operator to toll supervisor; M. Schultz, operator to supervisor.

Oak Park, K. Gerling, transferred from Austin operator to night supervisor.

Elmhurst, A. Blievernicht, operator to assistant chief operator.

Weddings

Arthur G. Kingman, of the general traffic superintendent's office, was married June 17th at Oak Park, Ill., to Minnie Pauline Schaepe. Mrs. Kingman was formerly in the engineering department. They will be at home to their friends after August 1st at 5039 North Robey street, Chicago.

Miss H. Dammeler, chief operator at Elmhurst, resigned July 1st to be married to A. H. Beckman. They will reside in Elmhurst.

Margaret Ward, Hammond chief operator, was married June 4th to Edward McFadden of Whiting, Ind. Miss Ward was presented with a set of silver by the employees at the Hammond exchange, where she has been employed for the past six years.

Ruth McKeown, chief operator at Whiting, Ind., resigned June 1st to be married. Miss McKeown is succeeded by Miss A. Hoppe of Hammond.

Madge Bennett, chief operator at Libertyville, was married May 2nd to Frank James. Mr. and Mrs. James will be at home to their friends in Libertyville.

Mary O'Reilly, Central supervisor, was married Wednesday, June 24th, to Henry Heinsoth. The marriage was solemnized at St. Dominick church. The bride wore a gown of white net. She was attended by Elizabeth O'Hara. The supervisors presented the bride with a beautiful electric lamp and cut-glass vase.

Mary Brogan, senior supervisor at Central, resigned last month to be married to Bert Taylor. Miss Brogan has been with the company over twenty years and is most highly esteemed by her office associates. On Thursday evening Central supervisors gave a dinner for Miss Brogan in the walnut room of the Sherman House. The supervisors gave Miss Brogan an elegant present of one-half dozen sterling silver after-dinner coffee cups and saucers with coffee spoons. The wedding took place at St. Anselm's church at 4:30 o'clock Saturday, June 27th. The bride wore a traveling dress of green silk poplin. She was attended by her sister. Mr. and Mrs. Taylor will spend the summer at their summer cottage at Lakewood.

Sarah Delucas, West operator, was married Saturday, June 27th, to Fred Wiscons at the church of the Holy Rosary. She was attended by six young ladies, three of whom were from West office, Clara O'Brien, Rose Mandarin and Carrie Koenig. The bride was gowned in white silk with gold lace over dress and the bridesmaids were in white and carried pink roses. A large reception followed. Friends at West office presented the bride with a cut-glass orange bowl.

Rose O'Hagen, Oakland order clerk, was married to William Wertz, June 17th, at St. Brendan's Church. On Saturday, June 7th, the Oakland girls gave a miscellaneous shower for Miss O'Hagen. She was presented with a set of silver and many other beautiful gifts. The good wishes of Oakland office are extended.

Mrs. Carr, Harrison matron, was married to James Sweetman at the Blessed Sacrament Church, Wednesday, June 3rd. The Harrison supervisors gave a luncheon for Mrs. Carr and the force gave her a beautiful chest of silver containing forty-two pieces, and she received many other presents from her many friends in the office.

Mayme Whalen, senior supervisor of Main exchange, was married to James Shay, Tuesday, June 30th, at her home in Wauconda, Ill. The bride wore white crepe de chine and white hat. She carried a shower bouquet of lilies of the valley. The bridesmaid, Dorothy Ashley, her niece, carried orange blossoms. The wedding supper was served at the home of the bride's sister at Lake Zurich, Ill. Mr. and Mrs. Shay left on their honeymoon at nightfall. They will be at home after September 1st. The bride received many beautiful gifts, among which were an oil painting, cut glass punch bowl, electric lamp, chest of silver, cut glass water set and cut glass vase. Miss Whalen was assistant chief at Main office and for over twenty years has been identified with the telephone operating force. She has won the respect of her employers and the affectionate regard of the force. Good wishes go with her.

Catherine Murphy, a supervisor at Main exchange, was married to Daniel Desmond at Nuptial High Mass, June 30th, at St. Gabriel's Roman Catholic Church. Miss Murphy wore a dress of white ivory satin, a tulle veil and carried lilies of the valley. Catherine Tuohy, her bridesmaid, wore white embroidered voile and carried orange blossoms. The wedding breakfast was served at the bride's home at 4407 Union avenue, after which the couple left for their honeymoon in the Dells of Wisconsin. Mr. and Mrs. Desmond will be at home after September 1st. Miss Murphy received many beautiful presents, the supervisors presenting her with a handsome electric lamp.

Miss Bakke, toll day operator, was married to Mr. French June 24th, at St. Peter's Evangelical Church. The bride was dressed in white crepe de chine and carried a shower bouquet. Her sister, Selma Bakke, was matron of honor, and wore a robe of pale green. One of her bridesmaids, Emma Kinlock, wore pink, and the other, Hilda Blum Dahl, wore blue. Miss Bakke has been for eight years connected with toll office and has many friends among the girls, who presented her with a set of silver. She will be at home at 1540 North Keeler avenue.

Entertainments

On June 4th, the toll evening supervisory force were entertained at a luncheon given by Margaret Bolger, in honor of Evelyn Webb, who has resigned to make her future home in California. Miss Webb has been in the company's service for thirteen years. The vocal selections rendered by Hilda Weren and Etta Dwyer, also the fancy dancing by Lydia



MR. AND MRS. WILLIAM WERTZ
And Wedding Attendants.

Erickson, were enjoyed by all present. Miss Webb was presented with a beautiful leather purse as a remembrance from the girls. All extended their best wishes for a safe and pleasant journey.

It was no mild April shower which took place in the home of Main Chief Operator Mrs. Regan Tuesday evening, June 16th, but rather a heavy midsummer deluge, if one may judge from the number of guests present, and the shower of pretty and useful gifts, which were heaped upon the bride-elect guest. The occasion, as the reader may have already guessed, was a miscellaneous shower given in honor of Mayme Whalen, one of the most popular senior supervisors of Main office, who was about to enter the state of wedded domesticity, and as previously mentioned, Mrs. Regan, the amiable chief operator of that office, was the hostess. During the evening the guests, seventy-two in number, were exceedingly well entertained by several high class musicians and soloists. Frank Gallagher of the commercial department rendered several humorous songs, which added to the merriment of the occasion; his performances at the piano were likewise greatly enjoyed. Mr. Gallagher's efforts were ably seconded by Jay Erfelding, who formerly worked in the commercial department. Mr. Erfelding sang several selections, and his excellent voice harmonized nicely with his own clever playing. Most enjoyable features of the evening's entertainment were solos by Bessie Kiernan, which were generously given and immensely enjoyed, and readings by Edna Grimes, which captivated an admiring audience. Mrs. Regan proved her ability as a hostess in several ways, but the daintily prepared repast spread on a handsomely decorated table was perhaps her crowning glory. After partaking of these refreshments and complimenting the hostess on her culinary success the guests were again entertained with music and song until a late hour. Among the guests were several friends of Miss Whalen, who were formerly in Main office, Mrs. Moore, Mrs. Johnson, Mrs. O'Neil, Mary Moran, M. F. Moran, Nellie Whalen and Della Windhauser, also the day supervisory force and day matrons.

In spite of the inclement weather and howling "northeaster," which kept people indoors on Thursday, June 4th, a pleasant time was enjoyed by a number of the Main supervisory force and day matrons. The occasion was a kitchen shower given by Miss M. F. Moran in honor of Mayme Whalen, a bride-elect, who enjoys the honor of being one of the most popular girls in Main office. The assembled guests were entertained by the sweet soprano singing of Bessie Kiernan and Rosella Moran, and a few readings by Edna Grimes. Mrs. Mary Re-

gan, Main chief operator, was one of the guests.

First place in service standing was won by Wabash, February 1, 1912; May 1, 1913; October 1, 1913; February 1, 1914, and March 1, 1914, and second place for March, 1913. The prize money received was spent in a very delightful manner. Tuesday evening, June 16th supper was served at the exchange, after which the entire day and night force went to see "Daddy Longlegs." The evening force went to the matinee Saturday afternoon, June 20th. The theater party was enjoyed by all. The Main operators celebrated their winning of first place by a luncheon served in the large dining hall Thursday, June 11th.

Operator's Mother Wreck Victim

News of the *Empress of Ireland* disaster came to one office with peculiar horror, for the mother of Ethel Mounsey, supervisor at Main office, was one of the victims. For thirty years Mrs. Mounsey had not seen her mother in the old country and with a friend she started on the fated ship. Both were lost, leaving their families inconsolable. Miss Mounsey has the deepest sympathy of all the force at Main.

Wisconsin Division

T. N. Moore, Correspondent,
Milwaukee

Appleton District

The interior of the Appleton building has been redecorated by Mr. Stenborn of Milwaukee. The appearance of the exchange is greatly improved.

The fourth private branch exchange installed at the Appleton exchange this year has just been completed. It is a No. 4, in the First National Bank building.

A construction crew of about thirty men under Foreman DeBrenner is rebuilding the exchange at De Pere and combining the old Fox River Valley's plant with the Wisconsin Telephone Company's.

Belle Conaboy, night operator at Fond du Lac, entertained the night operating force of the company and a few other friends at a 6:30 dinner, at her home, on May 15th. The affair was arranged in celebration of her birthday anniversary. The dining room decorations were blue and white bells and the place cards were miniature telephones. During the evening piano selections were rendered by Nona Gaffney and Bess Hennessey and vocal selections by Emma Klerig and Elizabeth Willis. Guests from out of town were Hazel Edwards, Beaver Dam, and Gladys Murphy of Chicago.

About 100 feet of twenty-five-pair cable was burned out during an electrical storm on the night of April 24th at New London. By the prompt action of the district wire chief and cablemen service was restored to about sixty-five telephones in a very short time.

W. W. Hinz, commercial agent at Oshkosh, secured a contract for a cordless private branch exchange from the Cook and Brown Lime Company.

Toll lines in Sturgeon Bay territory were kept in such good condition that no repair trips were necessary from December 30, 1913, to May 6, 1914. The lines consist of five circuits for ten miles and three circuits for forty-five miles. Considering the territory this is considered a very good showing.

Eau Claire District

Herman Rambow, repairman at Ladysmith, has been transferred to Eau Claire to start on toll-line extensions and repairs.

H. J. Livermore, repairman at Ladysmith, has been promoted to local wire chief at Chippewa Falls.

Lila Way, chief operator at Cameron, resigned June 1st on account of poor health and is succeeded by her sister, Winnie Way.

The Rusk County Rural Telephone Company at Ladysmith has transferred sixteen rural subscribers from line 301 to 312 to take care of the increase in the 301 territory.

The Prentice Mutual Telephone Company at Prentice, Wis., added two more rural telephones during May, making a total of seventy subscribers.

The Lake Hallie Telephone Company, Chippewa Falls, has added ten farmers, bringing the total to thirty subscribers.

Chleo White, night operator at Chippewa Falls, has resigned on account of the illness of her mother and is succeeded by Helen Jasper.

Jennie Rand, of Chippewa Falls, was the first to enjoy her vacation, which she spent at her home. Mamie Jasper, a former operator, substituted for her.

Loretta Strahan, Helen Jasper, Hazel Kehnl and Ruth Ermatinger, Chippewa Falls, enjoyed their supper May 21st on the rocks along the river.

The operators at Chippewa Falls enjoyed an auto ride May 22nd given by one of the



PIONEERS REVISIT BUILDING.

The officers and employees of the company were very pleasantly surprised a few days ago when Thomas Boland and W. H. Partridge, the two oldest collectors, recently pensioned, called at the office where they had been employed for so many years, to shake hands with their former associates. Both are in perfect health and are now enjoying the rest that they so richly deserve. Mr. Boland is on the left in the picture and Mr. Partridge on the right.

subscribers for the good service he had received.

Mr. Kaiser and crew has started repair work at Chippewa Falls.

Mrs. J. Johnson has accepted the position of operator at Cornell, succeeding Mrs. J. E. McArthur.

The Chippewa Falls exchange has been supplied with a new Ford auto, which is greatly appreciated.

Irma Frye, of Merrill Junction, has accepted a position as night operator at Merrill. The telephone men entertained at the home of Mrs. E. L. Dexter on May 27th. Light refreshments were served.

Mae St. Onge has been appointed chief operator at Merrill, succeeding Anna Mattson, who left the service June 1st.

On June 1st the joint 10-A office at Merrill was discontinued and the Western Union office was moved into the old quarters in the express building.

Anna Oberts, night operator at Washburn, spent a two weeks' vacation, visiting relatives and friends at Superior.

Marie Johnson has been employed as stenographer in the Eau Claire district plant office.

Foreman H. Mangold and crew are employed on D. R. estimate work at Menominee.

Foreman Frank Kaiser and crew are employed on the D. R. estimate at Chippewa Falls.

Foreman H. Rambow with a crew is stringing an additional trunk line between Chippewa Falls and Cornell for the Cornell Telephone Company.

On May 16th a traffic meeting was held at the Knight Hotel at Ashland at which the following attended: Anna Adamek, Ashland chief operator; Grace Thesensvitz, Cumberland; Anna Arseneau, Washburn; Mabel McKay, Superior; Gertrude Harding, Bayfield; Alice Lauxon, Ironwood; A. L. Hart, division traffic inspector of Milwaukee, and J. V. Young, of Eau Claire.

William P. Hyland resigned his position as

collector at Ashland June 1st, and has accepted a position with the city. Bernhard Hull succeeds Mr. Hyland.

P. R. Keene, construction foreman, has just completed the construction of three rural lines at Stanley. This will add twenty-three new subscribers to the Stanley exchange.

Magnild Kvarnes, assistant chief operator at Hudson, spent her vacation visiting relatives at Two Harbors, Minn.

Miss I. M. Skovold, night operator at Bayfield, was suddenly called to St. Paul the first of the month. Helen Woods relieved Miss Skovold.

The La Crosse plant department has been supplied with a new Ford runabout, which is doing fine service.

Amanda Hansen, chief operator at Eau Claire, has returned from a two weeks' vacation at her home at Hortonville, Wis.

Manager J. E. Bonell, of Eau Claire, has returned from a few days' outing at Black Dam Lake, Sawyer County, where he was accompanied by Mrs. Bonell and a party of friends from Eau Claire. He reports a good time, and the fine specimens of the finny tribe he brought home would indicate that he is no novice in the art; but he still asks the question, "What is a clam?"

Janesville District

The Beloit exchange reached the 2,500 mark in May. On May 30th, a joint Beloit-Janesville picnic was held at Yost's Park, by Beloit and Janesville, to celebrate the occasion. A good time was assured everyone. Refreshments were served and prizes were given for various sports. The ladies' ball game, Beloit vs. Janesville, was won by Janesville. The men's ball game, Beloit vs. Janesville, was won by Janesville. The men's free-for-all race, first prize was taken by Janesville, second prize taken by Beloit. In the ladies' free-for-all race, the first prize was taken by Janesville, second prize taken by Beloit. Pat ladies' race, first prize taken by Beloit, second prize taken by Janesville. Pat men's race, prize taken by district cableman, Janesville. Men's standing broad jump, prize taken by Beloit. Sixty people were present.

Rose Baldwin, chief operator at Darlington, spent her vacation with relatives and friends at Dubuque, Ia. Marie Nelson, formerly toll operator at Darlington, acted as chief operator during the absence of Miss Baldwin.

Marion Vanderlyn has resigned as toll operator at Janesville to accept a position with the American Telephone and Telegraph Company at Minneapolis.

J. Meehan, superintendent of the Footville Telephone Company, visited the Janesville exchange recently. The Footville Company has recently constructed a new exchange building. It also expects to install a switchboard and string about 200 feet of cable.

Blanche Murry has been promoted to chief operator at Beloit, succeeding Bessie Ryan. Beulah McPherson has been promoted to assistant chief operator at Beloit, succeeding Miss Murry.

The traffic department at Beloit gave a reception on May 21st at the home of Olga and Augusta Bakke in honor of the Misses Murry, chief operator, and McPherson, assistant chief operator.

The operators at Beloit held a meeting the evening of June 1st to discuss operating rules and bulletins.

A. Halker, repairman at Evansville, has resigned and his position has been filled by O. Melneth of the Janesville exchange.

A. Olson, repairman at Janesville, is confined to his home from injuries received while working with hot paraffin. His place is temporarily taken by Jack Lienen.

The United Telephone Company has completed specifications for additional cable plant at Blanchardville, which will make the Blanchardville exchange an all-cable plant. This company will also soon add additional equipment to fill the No. 1 Western Electric switchboard at Monroe to its present capacity.

Madison District

Operators at Baraboo recently gave Della Jorg a linen shower. The girls report a very pleasant time.

Ellen Loveland, local operator at Baraboo, entertained the operators at a party recently, the occasion being her birthday.

On May 11th Stoughton and vicinity was visited by a healthy little tornado. Barns and tobacco sheds along its path were reduced to kindling wood. Out of the thirty-four farmer lines, but two remained working. Poles and wires were down in all directions. At one place a tobacco shed, after making a short flight, landed squarely on top of a four-wire lead. There were large breaks in the toll leads, both east and west out of the city. These gaps were closed with twisted-pair wire and all toll lines were working temporarily at nine o'clock the following morning. District Repair Foreman Davis arrived

promptly on the scene with a crew of ten men, and immediately set to work to restore the rural lines. As there were about 250 farm telephones and 150 city telephones out of service, a storm estimate was approved for this work.

Equipment Foreman Ernest Borchers is working at Stoughton installing an additional local switchboard position.

Florence Ladlen, chief operator at Jefferson, visited with friends at Rockton, Ill., a few days the first part of the month.

The Jefferson manager has completed the installation of a private branch exchange with six stations at the Sheboygan Evaporated Milk Company's office.

A contract for a three by seven cordless switchboard consisting of two trunks and seven stations was secured at the Madison exchange to be installed at the French Battery and Carbon Company's offices.

Marie Harbort, local supervisor at Madison, was married to John Moran at St. Bernards' Church, Tuesday, June 9th. The operators presented her with a beautiful water set.

Amelia Fleckenstein, local operator at Madison, spent a few days in Milwaukee recently.

J. P. Brahany, local manager at Madison, was a recent visitor at Chicago.

R. J. Effler has been transferred from the construction department at Milwaukee to district cable man for the Madison and Janesville districts.

Dora Cunningham, private branch exchange operator at the New Park Hotel, recently underwent a very serious operation at St. Mary's Hospital, Madison.

District Commercial Agent V. W. Deist recently completed plans for a rural-line estimate in the vicinity of Fort Atkinson. This estimate provides for forty subscribers.

H. Schroeder, district plant chief of the Madison district, has purchased a twenty-six foot thirty-horse-power motor boat. The district office forces are contemplating a series of launch parties to be given this summer at various points on the lake.

The Telephone Mutual Club at Madison gave a dancing party at the Woman's Building May 15th. About 100 attended. Scherer's Orchestra furnished music.

Bessie Picus, local operator at Madison, was married to Mr. Katz of Janesville, June 7th, at Kehl's Hall, Madison. They will reside in Janesville.

Catherine Esser, pay station operator at the Northwestern depot at Madison, spent her vacation at St. Paul and Mankato, Minn.

Mr. Chappell, manager of the Fuller Opera House, sent the Madison operators complimentary tickets to see Mr. and Mrs. Griffiths, and Mr. Cox, the manager of the Majestic, treated the operators to a performance at the theater.

Eunice Gage, local operator at Whitewater, entertained the operators at a slumber party at her home, June 8th.

The joint 16-A office at Whitewater was discontinued on June 1st. Rose Renner, formerly Morse operator, left June 5th for Kaukauna, to accept a position there with the Western Union Telegraph Company.

Carrie Fellows, Olive Dutcher and Minnie Messerschmidt, of the Whitewater exchange, spent Sunday, May 31st, with Edith Brewer, night operator at Fort Atkinson. While there they called on Mrs. Finch Clark of La Crosse, formerly Calls Foulkes, toll operator at Whitewater.

Adolph Bullerjahn and S. E. Slattery, former clerks in the Madison District plant chief's office, made a short visit at Madison on June 13th and 14th, being guests at the home of Mr. Brewer, district wire chief.

Elsie Prust, clerk at Fort Atkinson, has resigned to be married. Her position is taken by Pearl Krippner.

Milwaukee District

Alice O'Brien, clerk at Lake Geneva, has returned after a six-months' leave of absence.

Miss G. A. Hendricksen, chief operator at Hartland, was married June 1st to Thomas Sunstead.

Ruth Rhoda, operator at Oconomowoc, was married June 4th.

Anna Stockel, toll operator at Waukesha, spent her vacation in Chicago.

Milwaukee girls who resigned their positions during the spring to be married were: Main office, Florence Sadler; Gladys Caswell; Grand office, Rosella Fisher; West office, Beatrice Richter; Lake office, Margaret Owen; Frieda Schamell; Kilbourn office, Lucile Mainz. Pretty entertainments were arranged by the girls of the different offices for those who left.

On Thursday, May 28th, the West office operators, Milwaukee, entertained their mothers at the telephone office. Twenty-five ladies attended and apparently enjoyed being made familiar with the work of their daughters.

Illinois Division

C. H. Rottger, Correspondent,
Springfield

Alton District

Alton operators gave their annual moonlight Mississippi river excursion on the night of June 19th, on the Steamer *Majestic*. All went well and the 1,000 operators and employees and their friends had a pleasant evening. But after the boat had landed its passengers at the wharf at Alton and was on its way back to tie up at St. Louis, it struck an unfinished water tower and sank in mid-stream. Members of the crew were rescued.

C. M. Corzine has taken the position of Repairman No. 3 at Alton.

Centralia District

Anna H. Perce, chief clerk in the commercial department at Cairo, has resumed her duties after having been on the sick list. Mrs. L. Fay Danforth, traffic chief at Cairo, has resigned and her place is being filled by Alma Highshoe, traveling instructor, from Centralia, Ill.

The Cairo exchange made a gain of twenty-one stations during May.

During the Grain Dealers' convention on June 2nd and 3rd at Cairo special service was furnished in their Pullman cars and at their convention hall, which pleased the delegates.

M. B. Heidler, lineman at Cairo, was transferred recently to Centralia.

C. E. Lawrence, wire chief at Cairo for several months, was recently transferred to the division office.

G. C. Arey has been appointed wire chief at Cairo, succeeding C. E. Lawrence.

Ralph Ary, formerly district cableman at Centralia, has resigned his position and taken up the study of law. He expects to take his examination in July, and his friends in the Centralia district wish him success in his new undertaking.

A. B. Minton, president of the Murphysboro Telephone Company, states that he will begin building an exchange at Sesser, Ill., this month. All the material is now on hand.

The Western Union joint offices at Carbondale, Anna, Benton and Murphysboro, Ill., were discontinued as of April 30th.

W. L. Parrish, formerly district plant chief at Paris, Ill., has been transferred to Centralia, succeeding R. D. Wallace, who has been transferred to the division office.

Harry G. Lankford, district commercial manager at Centralia, was married June 9th to Lula Armbruster of Springfield.

Champaign District

District Commercial Manager O. F. Clark and Traffic Chief I. I. Andrews took a short business trip through Michigan the latter part of May and tarried a while in Manistee County to try the fishing. They are illustrating their fish stories with snap shots taken on the ground. Rainbow trout are the fish shown in the picture on Page 21.

The Champaign operators and their friends spent Sunday, June 7th, at Home Park. Boating, swimming and dancing were made the most of and a good time reported by all.

Shella Clint and Gladys McCoy, from Mattoon, Ill., have accepted positions on the Champaign toll force.

Decatur District

M. B. Smith, lineman in the plant department, fell from a tree on June 4th. He sustained severe bruises, but was not seriously injured.

A new private branch exchange has been installed in the office of The Herald-Dispatch Company, consisting of three trunks, one switchboard and fourteen stations.

The "Great Griffith" hypnotist, who has been playing at the Empress Theater, hypnotized a subject in a show window at Decatur from a telephone in the theater at Elkhart, Ind., over the Bell long-distance lines. It took only thirty minutes to install the telephone and complete the connections.

Margaret Ryan, clerk in the commercial department, has returned to work after an absence of several months on account of illness.

Galesburg District

Marjorie McCreary has returned to work after spending a week's vacation.

On Wednesday morning, June 3rd, occurred the marriage of Bertha Olson to Arnold Sanksen at Galesburg. The couple left immediately for Davenport, Ia., for a short visit and upon their return will go to house-keeping in Galesburg. Miss Olson was well

liked by all the operators. Several showers were given for her before her wedding.

On June 10th Ruth Gilbert became the bride of Frank Pugh of Sandwich, Ill. Miss Gilbert has been in the employ of the company for a number of years, having recently resigned on account of moving into the country. Mr. and Mrs. Pugh will reside at Sandwich, Ill.

Maud Haggengos, traffic chief at Galesburg, and Anna Mitchell, traffic chief at Quincy, intend taking their vacation together on a camping trip. The best of times is predicted by both of them, as it will be such a change from the regular office routine.

Francis Chittenden has taken a position as cable helper at Galesburg.

The Alpha Mutual Telephone Company has new poles set all over the city and is now busy stringing cable. At a meeting of the board of directors a contract for a new switchboard was awarded.

Recently oil was struck near Macomb, which caused considerable excitement, and a rush for leases caused the toll business of the Macomb Telephone Company to increase over two hundred per cent. But with the splendid exchange and the Central Union toll lines, they were able to handle the business with ease and satisfaction.

Jacksonville District

Ethel Wetzel, supervisor at Beardstown, has resigned and was married April 30th to L. Willey Meredith of Springfield, Ill.

Emma Kuhlman has accepted the position as supervisor, made vacant by Miss Wetzel's resignation.

Evalee Arenz, local operator at Jacksonville, resigned and was married to William McDonald, a prominent young farmer of Jacksonville.

Mrs. Grace Carroll, formerly chief operator, has accepted the position of night operator at Jacksonville.

Alfonso Ratliff, repairman at Jacksonville, has been off duty account having collided while riding a motorcycle, with the automobile driven by Dr. A. M. King. The motorcycle was completely wrecked and Mr. Ratliff was laid up for about ten days.

Kankakee District

Charles Murphy, collector at Kankakee, has been transferred to the plant department. Frank Deebank succeeds Mr. Murphy.

The Central Union operators of Mokena, Ill., gave their first dancing party on the evening of April 15th. Employees from Kankakee, Chicago Heights, Waukegan, St. Anne, Manteno and Grant Park attended, and everyone reported an enjoyable evening. The hall was decorated in blue and white. At midnight a delicious supper was served by the Rebecca Lodge.

Lillian Williams, cashier at Pontiac, resigned her position on April 27th, and was succeeded by Lillian Snethen.

Mrs. W. W. Anderson, evening chief operator, enjoyed a two weeks' vacation.

Ruby Shea, relief toll operator at Kankakee, spent an enjoyable two weeks' vacation.

James Davis, lineman at Kankakee exchange, has recovered from a recent attack of spinal meningitis, during which he was confined to the Presbyterian Hospital in Chicago.

Harry Hansen, former stockman at Kankakee, has taken that position again.

Mrs. L. R. Smart, wife of Toll Wire Chief Smart of Kankakee, died Saturday, May 30th, leaving a baby daughter, Edna Grace, born a few hours before the mother's death. The funeral took place in Aurora, Ind., the home of Mrs. Smart's parents. The sympathy of every telephone employee in the Kankakee district goes out to Mr. Smart. The employees at Kankakee exchange gave a beautiful wreath. The little one is making her home for the present with William Geckler, Jr., district plant chief, and Mrs. Geckler, and is doing nicely.

An estimate for the addition of 700 multiple and answering jacks including toll multiple, and rearranging the present peg count meter equipment has been approved for the Kankakee exchange. The work will be done by the Western Electric Company.

LaSalle District

George Winters, La Salle County florist, sent to the manager two dozen peonies, one for each lady employe, and a large bunch to the manager's residence in token of his appreciation of good service received.

The operators gave a private picnic on Saturday, at Lock No. 13. The fish catch was large.

Rose Feray has resigned as clerk in commercial department.

Collecting by mail continues to gain friends among the subscribers.

District Commercial Manager Atkins has secured contracts for a private branch exchange, of four trunks and twenty-seven stations, to be installed during the month of

June in Bent Brothers new building at Oglesby.

Mayme Blanche of the traffic department spent her vacation in Chicago visiting relatives and friends.

Arthur Greiner has accepted a position as clerk in the plant department.

Paris District

W. L. Parrish has been transferred from Paris to Centralia, Ill., as district plant chief. He will be succeeded by F. L. Mills.

Mrs. Carrie Edman held a reception in the reception room of the Telephone Company's office at Charleston, Ill., Thursday afternoon, May 21st, to the members of the Jolly Twenty Club, of which she is a member. The hours were from 2:30 to 5. The ladies were shown through the building and through all the different departments, the working of the operating room being fully explained. Refreshments of tea cocktail and Nabiscoes were served by the Misses Vera Haugh, Esther Bates and Nettie Galbreath. The favors were little bells attached to white cards, advertisements of the telephone company. Mrs. Edman was assisted in receiving by Manager Hill Moss and wife.

Ethel Johnson, ex-night chief operator at Charleston exchange, is back as day supervisor during school vacation.

Peoria District

Fred Rutledge invited the boys of the collection department, Peoria, to a stag party at his residence on June 5th. All reported having a royal good time, the party not breaking up until the small hours of the morning.

A private branch exchange contract has been secured for Carr and Johnston Company, at Peoria, covering one trunk and seven sub-stations.

The following men were added to the plant department at Peoria, June 1st: Blaine Branden, foreman; Albert Alcox, lineman; Clyde Watkins, lineman; R. W. Wade, groundman; Harry Ottoa, installer. Thomas B. Ramsey succeeds James Tremper as night wire chief, resigned.

The construction department has resumed work at Peoria, Fred Merrill being in charge of the work. E. B. Hoover, formerly of the Peoria exchange, will again take charge of the cut-over work. Carl Meneely, of the equipment department, has installed a new set of ringers at Peoria Main office.

D. H. Hayes succeeds Mr. Merrill as foreman, rebuilding the Peoria-Springfield toll line, Mr. Merrill being transferred to Peoria in charge of the construction work.

B. F. Duffy, city line foreman for Peoria, has been supplied with an Indian motorcycle to ride around the city and supervise the work.

At Galesburg, May 14th, Dr. McKinley of the First Congregational Church of that

tions on a farm in Missouri, as they expect when they quit the telephone business to become farmer's helpmates. At the present time they are making a study of rural telephone service.

The Quincy exchange was put on a centralized basis June 1st and we expect to like the change very much when we "get on to all the kinks," and understand Bulletin No. 16 a little better.

The operators had their regular annual moonlight excursion on the Steamer *Sidney*, which was a big success, as it carried the greatest crowd out of Quincy on a boat excursion this season. Everybody is well pleased with the entertainment given by the operators. They have some very fine tango dancers.

Rockford District

Members of the commercial department enjoyed the first of a series of picnic suppers, at Harlem Park, on the evening of June 2d. Small booklets in the shape of tennis rackets, containing original verses, depicting the past, present and future of the guests, were given as favors. A snap shot taken of the crowd at the table, shows them enjoying themselves immensely.

F. L. Mills, wire chief, has been transferred to the position of district plant chief, at Paris, Ill. J. S. Ghent succeeds Mr. Mills.

H. C. Fortune has taken a position as Repairman No. 1. R. O. Hayer has been transferred from Switchboardman No. 2 to Test-



LAWN PARTY AT ROCKFORD.

man No. 3. Charles Nolan has taken the position of Switchboardman No. 2. H. C. Ludlum has been assigned to the position of cable repairman No. 2. Earl Thompson has been transferred from Rockford to Galena exchange as repairman. John Sammons has been promoted from cable helper to cable Repairman No. 1.

Doris Spranger, evening chief operator, has been transferred to Milwaukee. Miss Spranger is succeeded by Frances Andrews.

Rock Island District

Alta Pierce, local operator at Rock Island, was married on June 4th to Walter Ayers.

Mollie Kerr, B operator at Rock Island, has resigned to be married.

A number of operators and supervisors of the Rock Island exchange enjoyed a six o'clock dinner at Long View Park, June 5th. One of the most interesting features of entertainment was a speech given by Ruth York, senior supervisor, her subject being "Woman's Suffrage."

Josephine McNellis, B operator at Rock Island, had the misfortune to break one of her arms recently. She is making good recovery, but it will be some time before she will be able to return to her duties.

Mildred Miller, evening chief operator, and Kathryn Miller, local operator, at Rock Island, spent their vacations in Dubuque, Ia., their former home.

Jennie Somerson, local operator at Moline, returned to her duties after a six weeks' leave of absence.

Herbert Miller, service inspector at Rock Island, has resigned and gone to New York, where he will enter the advertising business.

The Blue Bell Club, composed of employees of the Central Union Telephone Company, held a moonlight excursion on the night of June 1st on the steamer *G. W. Hill*. The boat was delayed at the Moline locks, but left Rock Island promptly at 8:30, returning at eleven o'clock. About 1,000 pleasure seek-

ers crowded on the steamer, and all are of the opinion that it was the most successful ever held by the telephone employees. Dancing was the main diversion, with the "tango" as a specialty, and other new steps much in evidence. The object of this excursion was to raise funds to entertain the Davenport



O. F. CLARK AND CATCH.

Champaign Manager Had Good Luck in Michigan.

district employees at a big picnic, to which all telephone employees in the four cities, Rock Island, Moline, East Moline and Davenport, will be invited.

Springfield District

Gertrude Newberry, local supervisor, spent her vacation at her home in Virginia, Ill.

Louise Abbott, local operator, has resumed her duties after spending her vacation in Chicago.

Eva Stover, toll rate clerk, spent her vacation in St. Louis, Mo.

The swimming pool at the Y. W. C. A. is open to the telephone girls Monday, Wednesday and Thursday evening of each week. Swimming and diving instructions are given by the physical director of the Y. W. C. A. A large number of the girls attend the swimming classes and are enjoying it immensely.

Gladys Wilson was united in marriage to Joseph Monka at the parsonage of St. Joseph's Church, June 3rd, at ten o'clock. Miss Wilson was formerly chief clerk to the plant superintendent.

May Downing, toll operator, spent her vacation in Danville, Ill.

G. W. Decker, division paymaster, has been appointed chief clerk to the plant superintendent.

Indiana Division

D. H. Whitham, Correspondent
Indianapolis

Indianapolis Directory

The latest Indianapolis directory of the Central Union Telephone Company, just distributed to subscribers, is the largest edition ever put out. The issue was 40,000 copies of 304 pages, or more than 12,000,000 pages in all, which would make a mammoth sheet of paper large enough to cover 140 Indianapolis city blocks. As each book contains over 32,000 names and addresses, there are in the whole issue 1,280,000,000 of such listings. These listings placed end to end would make a line 80,800 miles in length.

Nearly half a ton of ink was used in printing the directory and the paper required weighed over thirty-two tons.

Division Offices

A conference on centralized accounting was held the last week in May in the office of J. R. Ruddick, division auditor of receipts. William Donaldson, auditor of receipts, and C. L. McNaughton, treasurer, of Chicago, and C. H. Rottger, general manager at Springfield, Ill., attended. When the conference was concluded the party visited "Page's" and enjoyed one of the famous chicken dinners.

J. P. Hays, who has been for several years district plant chief, first of the Southern and later of the Northern District, has left the service of the company to become vice-president of the United Securities Company, of Indianapolis. Mr. Hays has made many friends among the telephone fraternity, whose best wishes go with him in his new undertaking.

J. W. Stickney, general manager, with his family, spent a week's vacation at



ROCKFORD "HIKERS."

Upper Row, Left to Right: Misses Peterson, Alnston and Leason. Lower Row: Misses Corcorane and Lonergan.

city, performed the ceremony, uniting in marriage R. E. Jackson, commercial manager of the Canton exchange, and Lora Runkle of Macomb. The couple are now located in their cozy little home at 206 Martin avenue, Canton.

At Canton J. F. Rossman, plant chief, resigned and was succeeded by Don Quigley, formerly wire chief. Don Quigley was succeeded by Lee Brisby, repairman. B. Birkhoff succeeds Lee Brisby as repairman.

Quincy District

Anna Mitchell, traffic chief, and Clara Coens, toll chief operator spent their vaca-

Charleston, W. Va., returning to Indianapolis in time to attend the Speedway races on May 30th.

Central District

The annual picnic of B operators of the Main office was held at Broad Ripple Park on the evening of June 4th. On account of the rain on this day, the girls were somewhat disappointed. It was necessary to have the dinner indoors. After dinner a few hours were spent in the skating rink. The girls have planned to have another picnic soon.

Mrs. Jeannette Hamant has issued invitations for a reunion of former Indianapolis toll recording operators, to be held at the James Allison country home. Among those invited are Margaret Cooper, Vonnice Nelson, Nina Hahn, Mrs. DeHart and Margaret Rooney.

Grace Harkins entertained at dinner for Margaret Cooper on the evening of June 10th at her home.

Margaret Shea and Mabel Benson, toll supervisors, were the guests of Bertha Faut at a German musicale given at New Palestine, Ind.

Mrs. Martha J. Taylor, matron of Woodruff office, has been transferred to the position of matron at North office, succeeding Mrs. Nora Sullivan. Before she left the Woodruff girls gave a surprise dinner for Mrs. Taylor. Miss Barber, evening chief operator at the Woodruff office, superintended the dinner—in fact, was chief cook for the occasion, and a most delicious dinner it proved to be.

The North office girls gave Mrs. Nora Sullivan, their retiring matron, a farewell dinner on June 10th, and presented to her a beautiful water color to adorn the walls of her new home in Irvington.

All records of "good" out toll messages were broken at the Indianapolis exchange during the month of May. The highest record for the year 1913 was made in December, which exceeded the previous record of March, 1913, the flood period. The number of messages handled in May, 1914, exceeded by 2,500 the high mark for 1913 made in December.

One section is to be added to the Beech Grove switchboard.

Additional outside facilities are to be installed at North exchange.

An estimate has been approved for rebuilding the Indianapolis-Kokomo pole lead, work to begin as soon as material arrives. Two additional toll circuits will be attached to this lead.

Northern District

Pan Jay of the Citizens Telephone Company of Kokomo, has purchased a farm near Kokomo, and it is said that he contemplates fitting it up for farming, orcharding and housekeeping. The rumor did not disclose who the lucky occupant of the country home is to be, but here are our best wishes, Pan, with hopes that there will be some invitations extended to visit the new place.

William Pogue of the Whitley County Telephone Company at Columbia City was a visitor at the Speedway races on May 30th and had an automobile stolen. Through the quick action of the Bell organization a careful watch was kept for the machine, and it was finally located in Terre Haute, where the joy riders had left it after having a lark through the country.

W. B. Hutchens, who has for some time been manager of the United Telephone Company's exchange at Hartford City, has been transferred to Marion as wire chief, and C. E. Spaulding, of Bluffton, has been transferred to Hartford City as manager.

The City Council of Fort Wayne has passed a resolution calling upon the chief of police to enforce an ordinance against placing signs on telephone and electric light poles and requesting that all existing signs be removed.

Negotiations have been completed for the sale of the Central Union Telephone Company's exchange at Avilla to the Farmers' Mutual Telephone Company, the transfer of the property taking effect June 1st. Mr. Whitman, of Indianapolis, and Manager Otis of Kendallville, met with the Farmers' Company at Kendallville, making the transfer.

The Joint 10-A office at Auburn was closed June 1st, the Western Union temporarily remaining in our quarters with Mr. Dausman as manager. As soon as new quarters are completed the Western Union equipment will be removed.

Now that the Lake Maxinkuckee summer season has opened, it is to be expected that Manager Dalrymple, at Culver, will have a great many Central Union visitors.

Miss Medbourn, who has been chief operator and cashier at Culver for many years, left the company on June 15th, and it is rumored that she will soon occupy a cozy cottage of her own. We know that the groom to be is very lucky, and Miss Medbourn has our very best wishes.

The Joint 10-A office at Culver was closed on June 1st. The Western Union has leased new quarters and will move offices and operate independently as soon as equipment can be installed.

Manager E. T. Bonds of South Bend spent ten days at Martinsville taking the baths for his rheumatism. He returned to South Bend feeling like a new man. While he is as yet weak, indications are that he will soon be entirely recovered.

The citizens of South Bend, Ind., and Niles, Mich., felt that the road between those two places was not in proper condition, and all business firms volunteered to send men to spend one day to improve the road. The Central Union furnished a number of men, teams, etc., and assumed the work of re-grading one-fourth of a mile of the road. The young ladies of the exchange went along and furnished coffee and "eats" while the men folks did the work on the road. Our gang was well advertised, having a large banner showing the company's name. The men all wore overalls with standard Blue Bell sign stenciled in front, so that there was no mistaking who was on the job.

Additional broker circuits have been established between Muncie and Fort Wayne, Lafayette and Attica, and arrangements have been made to take over about \$6,000 worth of brokerage business as of July 1st. The broker circuit from Indianapolis to Rushville has been discontinued.

The Merchants' Mutual Telephone Company is installing a small exchange at Grand Beach, a summer resort a short distance from Michigan City, to take care of summer guests at that place.

The plant department is adding to the toll test panel at Alexandria to take care of additional Morse equipment.

Mayme Hinsey, local operator at Auburn, has resigned and will be married. Bessie Aberlin takes the position.

The engineering department is preparing the plans for additional outside facilities at South Bend, work to be done by the plant department.

The Tipton Telephone Company, of Tipton,

Improve the Looks of Your Office

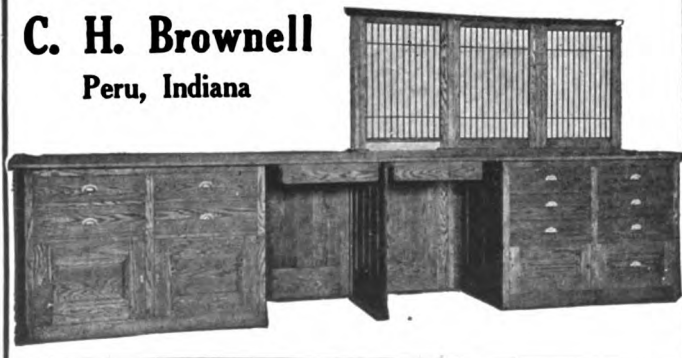
You can do this easily and inexpensively by installing the

BROWNELL SYSTEM OF INTERCHANGEABLE OFFICE FIXTURES

We ship them knocked down and you can assemble them with a screw driver

Send for Catalog.

C. H. Brownell
Peru, Indiana



Highest Grade of Inside and Outside TELEPHONE WIRE

Made in accordance with the specifications of the Western Electric Company or those of any other customer.

The Electric Cable Company

17 Battery Place, New York

Boston
Philadelphia

Chicago
St. Louis

Cleveland
San Francisco

Works: Bridgeport, Conn.

Sterling Contractors' Barrow

Built to give and gives the kind of service which contractors have long waited for.

Its easy wheeling and long-lasting qualities give the highest degree of satisfaction.

It will hold over twice the load of ordinary pan-shaped barrows and will outlast two similar style barrows of any other make.

Among its desirable features are:

Channel steel legs — 16 gauge steel tray — angle iron and v-brace riveted to channel legs. Clear, bone-dry maple handles. Patented, self-lubricating wheel, etc.

Don't fail to get the Sterling Catalog before buying further barrow equipment.



Sterling Wheelbarrow Co.
West Allis, Milwaukee, Wis.

is installing a complete new central-office equipment, to have both the Bell and independent toll-line connection.

Connection has recently been made by the Chesterfield Telephone Company at Anderson for Bell toll business. This company heretofore has had only the independent toll connection.

Managers Lee of Anderson and Hollis of Muncie have forwarded complete commercial forecast maps for their exchanges in order that the engineering department may immediately prepare plans for necessary outside facilities. The engineering department is also working on the plans for additional outside facilities for Shelbyville.

The Joint 10-A office at Frankfort was closed June 1st, the Western Union temporarily occupying our quarters and operating independently until new offices are ready.

Agnes Hinsey, toll operator at Auburn, who underwent an operation at Garrett, is slowly improving.

Southern District

Two local positions on the Vincennes switchboard will be converted into toll positions.

A No. 102 private branch exchange of thirty-two stations has been installed at the Bowles Hotel, Bloomington.

The plant department expected to cut over the Central Union toll plant at Crawfordsville into the former independent exchange on June 13th. The local exchange will probably be cut over about July 1st. At that time all duplicate stations will be removed.

The 10-A office at Greenwood was closed June 1st. The Western Union leased space in the telephone building.

Manager Higman, Cashier Emery Love and Chief Inspector H. M. Guthrie arranged a nice party for D. H. Whitham, of Indianapolis, on the occasion of a recent visit to Bedford. The boys have a cottage in the woods several miles up the river from Bedford and a gasoline launch to make the trip. Mr. Higman is cook, and a splendid chicken dinner resulted from his efforts on this evening. The camp is in the midst of the watermelon territory, and Mr. Whitham hopes for another invitation later in the season.

Ethel Chambers, local operator at Bloomington, resigned June 1st, and was succeeded by Helen Dalton.

Cleveland Division.

W. K. Lawrence, Correspondent.

Unsolicited Comments from Subscribers

Youngstown, Ohio, May 28, 1914.

Mr. Anderson,
Cleveland, Ohio.

My Dear Sir: Allow me to take this opportunity to compliment your company on having in its employ a supervisor who renders every service to the subscribers of your system.

Last Sunday, the 24th inst., I had occasion to call a certain number. Having great difficulty in getting a response, I called upon the assistance of the supervisor.

The young lady in question made every effort to get my party and although was unable to do so, so impressed me as showing a consideration and courtesy to the general public not usually shown by the operators in general.

Being an old subscriber in another city and a frequent user in Cleveland, I cannot help but appreciate the attention that was given my particular call.

At my request she stated that her operating number was 558 and I would like very much that this appreciation on my part be called to her attention, realizing as I do, that it is generally the lot of the operators to listen to complaints, often justly, however, instead of to compliments. Very truly yours,
(Signed) A. H. FOOTE.

1300 West Ninth street, Cleveland, Ohio.

May 29, 1914.

Marlo Chief Operator and Operators: I wish it might be my privilege to thank each one of you in person for the promptness and accuracy with which you have taken care of our calls. If I have been patient with you I am glad, in doing so I am only in a measure repaying the untiring efforts of those who have never failed to do all they could for me. The position you hold is a trying one, and each subscriber ought to realize he is not the only user of the Bell 'phone and he patient.

Marlo Exchange service to me has been

perfect and I thank you again. Some day if it is permissible I should like to visit the exchange. Most sincerely,
(Signed) Mrs. C. M. DEMMETT.

Marlo 1141.

Cleveland, Ohio, May 16, 1914.

Mr. T. P. Cagwin,
Cleveland Telephone Co.,
Cleveland, Ohio.

My Dear Mr. Cagwin: On several occasions I have had to complain to you about the 'phone service, but it has so greatly improved that I believe it only fair I should let you know.

The service is excellent; the girls on the Doan board cautious and prompt in handling calls and I don't believe you could improve present conditions.

Thanking you for your kindnesses, I am very truly yours,

(Signed) C. J. P. LUCAS.

1861 East Ninetleth street.

Winona Pleasure Club

The Winona Pleasure Club, which is composed of Doan office girls, is planning to hold social gatherings or picnics every two weeks during the summer months. The last meeting was held at the home of Meta Wohl-gemuth, where music and dancing prevailed, during the evening. Sixteen girls were seated at the dinner table, which held a basket of white and red roses.

Mercantile League Banquet

The first annual banquet of the Mercantile League was held Thursday evening, May 28th, at Central Y. W. C. A. building. The Bell Club was well represented by about sixty girls from the various exchanges, whose songs and yells did credit to enunciation practice. The table for the Bell Club was very tastefully decorated with white sweet peas and blue bachelor buttons, carrying out the telephone colors in an effective way.

Marie Wing, committee chairman, made the welcoming address. Immediately after the welcoming address, a play was given by the junior department and solos from some of the club girls and songs by the glee club. Miss Ours, extension secretary, gave an outline of the work planned by the league for

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.



Write for FREE SAMPLE
Make Test and Comparison



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



Apex Multi-Kartridge Electric Soldering Iron No. 3

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalog and Free Trial Offer.

Apex Electric Mfg. Company, 1410 W. 59th Street, Chicago, Ill.



The "Dreadnaught" Brazed Steel Gasoline Blow Torch

Made to deliver the Hottest Fire and to withstand the Hardest Knocks and has made good and stood the service test of the Telephone Companies.

No soft Solder to melt or crack. Large Pump, quick starting Burner.

Convenient Filler service.

Let us quote you.

The P. Wall Mfg.
Supply Co.
PITTSBURGH, PENNA.

the coming fiscal year, which begins October 1st, when all classes are formed. The annual election of officers was then held and Minnie Spencer, of the Bell Club, was elected president of the league.

Some time in the early part of July the league expects to hold a conference at Sumnerland Beach, and the following Bell Girls were chosen as delegates: Mabel Hiller, Marie Aliberry and Elizabeth Spall.

Mr. and Mrs. N. S. Anderson and most of the managers of the large department stores and their wives were guests of honor at the banquet.

Ridge Office Picnic

A great many people look back at their childhood days and say, "Those were the good old days," but the operators at Ridge office do not propose to look back only, but to bring the good old days right up to date, so an idea which at first called for a walk into the country for the purpose of gathering



RIDGE OFFICE OPERATORS.
Waiting for the Truck.

and secured a large automobile truck for the event. Although there was not quite as much "give" to the springs on this car, there was consolation in the fact that it would be impossible to puncture the tires, as they were of solid rubber of the "steam roller" variety. There was so much merriment on the way, however, that everyone forgot about automobile tires, upholstered seats, etc., and in consequence developed a large appetite. When Berea was reached and the auto stopped at the home of Mrs. Bassett, aunt of Miss Kinter, ears that are generally attuned for "Number Please?" were now attuned for the sound of the dinner bell.

The party made such great inroads on the dinner that Miss Spencer, who chaperoned, was really alarmed, thinking that there would be no picking of wild flowers afterwards. Her fears proved unfounded, however, and the party spent the afternoon traveling over hills and dale. On the way back to Cleveland the most popular song was, "Merrily We Roll Along, Over the Red Brick Pike."

period is at once recognized as indicating some extraordinary occurrence in the city's activities. On May 25th at 8:45 p. m. an alarm of fire was made over one of the Cleveland Telephone Company's lines to the fire exchange. In a very few moments every office in the city became aware of a fire, which proved to be one of the most disastrous and spectacular conflagrations that has ever been recorded in the history of the city. There was no loss of life, but property damage and loss is estimated to be over \$1,500,000. Lumber yards covering several acres, located in the Cuyahoga river valley, known as the "flats," were almost entirely consumed, and the reflection of the flames could be seen for miles. Embers fell in showers on housetops located within a radius of two miles, and reports were constantly coming in of smaller fires which resulted. North office, located a mile from the disaster, was the only office in danger. Great balls of fire were hurled down on the roofs of houses immediately adjacent to this exchange, and the operators



MAY PARTY OF CLEVELAND OPERATORS.

wild flowers, gradually developed and culminated in an automobile ride to the village of Berea, a suburb fifteen miles west of Cleveland.

The crowd was entirely too large for an ordinary touring car, so Mr. McCarty, construction superintendent, came to the rescue

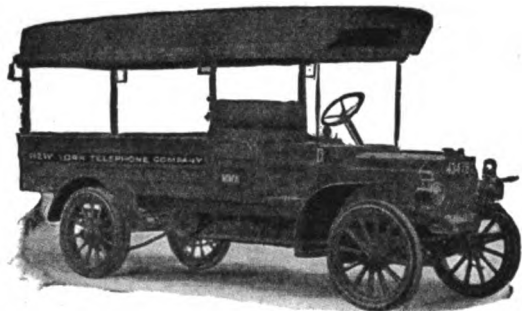
Traffic Conditions During Cleveland Fire

The telephone offices of a city are veritable barometers, indicating unusual traffic conditions affecting the public. Operating forces are familiar with traffic loads and an unusual influx of calls coming in at a particular



A TRIO OF RIDGE OFFICE GIRLS.

remained at the switchboard until nearly midnight loyally answering their calls. Traffic increased by leaps and bounds. This resulted in tremendous overloads at every office in the city, and the operating forces throughout Cleveland responded in a splendid and efficient manner.



ONE HUNDRED AND THIRTY - SIX

International Motor Co. Trucks of various sizes in the service of the Associated Bell Telephone Companies.

A total of a steady stream of orders for Supply Wagons, Post Hole Diggers and Powerful Winch Trucks for aerial construction and underground cable placing.

MACK



SAURER

INTERNATIONAL MOTOR COMPANY

West End Ave. and 64th Street

NEW YORK



The SEBCO way is Best

Indispensable for the proper fastening of electrical apparatus and fixtures to hard surfaces, such as floors, walls, ceilings, etc.

SEBCO Expansion Bolts Screw Anchors

The Expansion Bolts are designed for fastening heavy fixtures, such as insulator brackets, cable hangers, motors, switch-boards, etc., and the Screw Anchors for fastening cable clamps, lamps, telephone sets and other small fixtures.

Their use insures a quick, neat job and a saving in labor and expense.

Sold by dealers everywhere. Samples and Catalog on request

STAR EXPANSION BOLT CO.

147-149 Cedar Street

New York City



Ohio Division

**B. T. Calaway, Correspondent,
Columbus**

Chillicothe District

Izetta Waddell, who has been employed as toll operator at the Mount Vernon exchange for the past five years, resigned June 1st, and on the same date was married to John Nolen.

Violet Miller, operator at Mount Vernon, enjoyed her vacation at Barborton, Ohio.

Ethel Vincent, cashier at Mount Vernon, resigned her position and was succeeded by Berta M. Hall.

Irene DeBrucque, operator at Mount Vernon, spent a very enjoyable vacation at Coshocton, Ohio.

Eva Swingle, chief operator at Mount Vernon, resigned her position, and on May 23rd adopted the name of Mrs. Allen Braddock. Mr. and Mrs. Braddock will make their home at Hiawatha Park.

Hazel Graft, toll operator at Mount Vernon, has been promoted to chief operator.

Columbus District

The Columbus district shared in the general defection of forces due to the June activities of Hymen. Addie Thomas, bookkeeper in the plant accounting department, resigned June 3rd to be married to Fred Burch. They will reside in St. Thomas, Ontario. Mrs. Burch leaves the service with the congratulations and best wishes of many friends.

Dorothy Bruckemeyer, operator at Main office, is back on duty after several months' absence due to illness.

Estelle Phillips, operator in Main office, has been promoted to information operator.

Bertha Griffith is in Gaige, Okla., on account of her health.

Sarah Dew, operator in Main office, has been promoted to supervisor.

Lela Reinhard, information operator at Main office, has resigned to be married.

Marie Freidman, supervisor in Main office, was married June 3rd to Earl Woodland.

Helen Meier has resigned her position at Main office to make her future home in Louisville, Ky.

Sarah Whitl, toll operator, resigned to be married June 1st.

The following private branch exchange contracts were secured during May: Liggett's Drug Store, switchboard, two trunks, five stations; Norwich Hotel, thirty-one additional stations.

May 9th the employees of the district accounting department gave a reception and dance in their new quarters on the fourth floor of the New Commercial Building, 104 North Third street. About 100 were present, and, needless to say, enjoyed themselves immensely. The decorations and lighting effects were a feature. The committee in charge, A. Welch, Hazel Maris, Fay Rogers, Margaret Baehr, Minus Price and Maud Jacobs, are deserving of much credit for the successful manner in which this affair was conducted.

A. E. Brown, supervisor of the district commercial accounting department, has been confined to his home for several weeks, having undergone an operation for appendicitis; his recovery has been rapid. Anna Coffey



A GROUP OF TOLL OPERATORS,
Columbus, Ohio.

was in charge of the ledger section during Mr. Brown's illness.

The gain in stations for May was sixty-three, making 22,461, in Columbus, June 1st.

Dayton District

Most everyone knows how J. A. Bell and the stalwart plant force at Dayton are accustomed to do things, therefore the following letter, received from a subscriber, whose



SOME MORE TOLL OPERATORS.
Columbus, Ohio.

service was restored very promptly, will occasion no surprise:

Gentlemen: We want to thank you for the particular care given us this morning in rearranging our telephone connections after the fire. The writer called up Mr. Rasor about half-past six a. m. and the men were at work in fifteen or twenty minutes, and we used the 'phone inside of an hour or so. Yours very truly,

THE APPLE ELECTRIC COMPANY.
(Signed) C. A. Cornell, General Manager.

Toledo District

On the evening of May 29th, twenty traffic employees of the Findlay exchange enjoyed a picnic as a farewell in honor of Pauline Cox, who was transferred to Lima June 1st.

The traffic employees of Fostoria surprised Edith McCullough on the evening of May 20th in honor of her birthday. The surprise was given at the home of Marie Kennedy and an enjoyable evening was spent. Before departing the guests presented Miss McCullough with a ruby ring.

Maude Hogan, formerly toll operator at Toledo, has accepted a position at Lima. E. H. Fritchard, of Columbus, has been appointed traffic chief at Toledo, succeeding P. E. Cowgill.

Michigan Division

**David H. Dodge, Correspondent,
Detroit**

Detroit Operators' "Moonlights"

Every office in Detroit is included in a schedule of evening boat trips this summer, and although the first one of the four will have been and gone when this issue of BELL TELEPHONE NEWS comes out, there is no reason why those girls who missed it should not hurry and get in on one of the others. This is the list.

Date. Offices taking part.

June 11th..Grand, Cadillac.

July 14th..Main, Cherry.

July 24th..North, Hemlock, Walnut.

Aug. 7th..East, West, Hickory, Ridge, Cedar.

P. B. X. Development in Detroit

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of May were the following:

	Trunks.	Terminals.
Detroit, Toledo & Ironton Railway (new)	3	12
Trus-Con Laboratories (new) ..	2	9
Detroit Can Company (addit.) ..	2	18
General Ins. & Realty Co. (new) ..	2	6
Earl Apartments (new)	2	33
Board of Poor Commissioners (new)	3	6
Cornellus & Ring, attorneys (new)	2	6
A. C. Dietsche, post cards (new) ..	2	8
Detroit Casket Co. (new)	2	6
Frank Miller, real estate (new) ..	2	6
John Brennan & Co., boiler makers (new)	22	6
W. N. Whittemore, adding machines (new)	2	6
Detroit United Railway (new) ..	2	9
W. A. C. Miller (changed from interc., 2 tr. 5 term. to)	2	6
Houghton-Jacobson Printing Co. (addit.)	3	10

Of the total of twelve new private branch exchange contracts obtained during May, nine were secured by Floyd H. Lockwood, two by Dare S. Burke and one by F. M. Riegel. The new contracts and additional supplied a total of 147 stations for Detroit during May.

Detroit Operators' Excursions

A series of excursions will be given all operators and supervisors during certain days this summer, similar to the excursions given last year. It is hoped that every one will come and have a good time. On the excursions to Sugar Island, Bob-lo, Tashmoo, Put-in-Bay and Stag Island races will be run and games played, the winners of which will receive some very nice prizes. The list of excursions yet to be enjoyed is as follows:

Monday, July 13th, Put-in-Bay.

Tuesday, July 21st, Chatham.

Friday, July 24th, Tashmoo.

Tuesday, July 28th, Bob-lo.

NATIONAL

Double Tube Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
3932 Superior Avenue CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

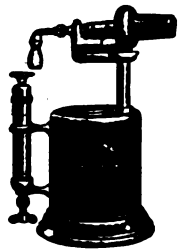
Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

No. 20 Turner Torch

The Lineman's Friend in windy weather. Delivers the hottest flame of any single jet torch made.



No. 20. \$4.25 net.

Order one now

The Turner Brass Works

Dept. T, Sycamore, Ill.

RELIABLE COPPER —AND— IRON WIRE CONNECTORS

For Telephone and Electric Wires

All sizes from No. 0000 to No. 19 gauge
Split and Combination sizes

Write for Samples and Prices

RELIABLE ELECTRIC CO., CHICAGO



No
hot weather
discomfort
for
the owner
of a



Western Electric FAN

It will make you forget that there is such a thing as hot weather.

Any one—the 8", 12" or 16"—depending on the size of your rooms—will have the effect of bringing in ocean breezes.

A Western Electric fan costs little to buy—little to run—and needs little attention.

Write for prices.

WESTERN ELECTRIC COMPANY

Chicago—Milwaukee—Indianapolis

Detroit—Cleveland

Saturday, August 1st, Bob-lo (Telephone Society excursion).

Tuesday, August 4th, Sugar Island.

Thursday, August 6th, Sugar Island.

Wednesday, August 12th, Bob-lo.

Thursday, August 13th, Sugar Island.

Friday, August 14th, Port Huron.

Thursday, August 20th, Sugar Island.
Wednesday, August 26th, Tashmoo.

Telephone Society of Michigan

The May meeting of the Society was held on the 28th. An entertainment and smoker formed the attractions of this meeting. Music and athletics provided the entertainment, and cigars were passed around to the smokers.

Piano solos, warmly applauded and endorsed, were played by Marshall Kobe and Clare E. Stark, both of the commercial department. George Larkinsky, who installs telephones, sang and danced. Mr. Larkinsky's feet are nimble ones, and his imitations—buck and wing variety—of different kinds of telephone men amused the crowd. Traffic Supervisor R. C. Sackett gave a short address, "The Scientific Employment of Help."

Then, in fear lest the Society might become too highbrow, the entertainment swung back to the primaevial variety. Boxing and wrestling matches followed, in which Royal A. Wright of the commercial department, made good his first name by securing the most points in both. Edward Parmeter, of the plant department, was his partner in the first, and George Larkinsky in the second match. Both Mr. Parmeter and Mr. Larkinsky kept Mr. Wright good and busy. Former President W. E. Dawson jeopardized his standing in the Peace Society by acting as timekeeper in the boxing match.

Lectures in Michigan

During the last week of May and the early part of June the stereopticon lecture, "Marvels of the Telephone," was given at West Branch, Iron River, Crystal Falls and Escanaba. The last named has common-battery system, the others magneto.

Important Traffic Conferences

A series of traffic conferences which have stirred up considerable enthusiasm among chief operators and their forces was held throughout Michigan during May and June. The purpose of the conferences was to better familiarize everyone with all the new and existing bulletins and instructions; to promote a better spirit of cooperation; and to urge to the fullest extent the education of all employees in the ways of the company.

Conference dates were as follows:
Kalamazoo District, May 7th and 8th.
Lansing District, May 12th and 13th.
Jackson District, May 14th and 15th.
Grand Rapids District, May 19th and 20th.
Petoakey District, May 21st and 22nd.
Saginaw District, May 26th and 27th.
Port Huron District, May 28th and 29th.
Detroit (Eastern District), June 18th and 19th.

These were presided over by L. J. Walley, division traffic supervisor and H. V. Weed, traffic supervisor.

Upper Peninsula conferences were held at: Iron Mountain (Menominee District), May 26th and 27th.

Houghton (Marquette District), May 28th and 29th.

These were presided over by Fred Clarke, traffic engineer.

Chief operators from all check-direct points attended the conferences. Local operating subjects were discussed the first day, and toll operating subjects the second day.

Some of the more important subjects discussed during the two days were: the complete re-written local operating instructions, which had just been given to the field; a new bulletin covering party-line designations, multiple marking, etc.; all traffic circulars and traffic letters; fourteen subjects covering toll service; filing of traffic reports and instructions; traffic inspection; comparative office standings; and selection and training of students.

It is expected that the general level of operating efficiency will be raised as a result of this series of conferences, and that the enthusiasm generated will carry everyone along until the next similar series.

Detroit Operators' Meetings

Monday, May 20th, the operators of the North office had a meeting and get-together party, at the Main building. The following musical program was given: Florence Flynn, piano solo; Anna Herzog, violin solo, accompanied by Florence Williams; Marie Keranan, vocal solo, accompanied by Miss Williams; Elsie Hefka, vocal solo, accompanied by Hazel Workle. Light refreshments were served in the dining room, and the rest of the evening was spent in dancing.

A meeting of supervisors, chief operators, and traffic chiefs was held at the Main ex-

Don't Forget the Fourth Annual Outing of the

Telephone Society of Michigan

AUGUST 1, 1914

Boats leave foot of Bates Street for

BOB-LO ISLAND

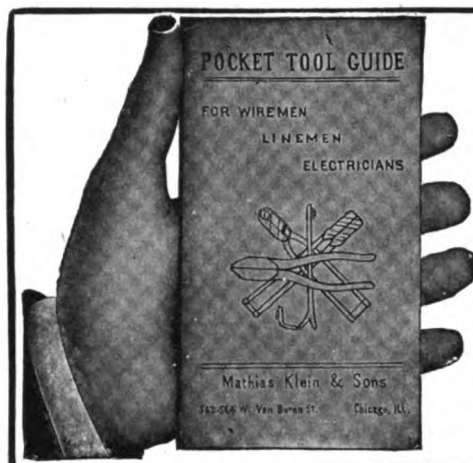
8:45 a. m. and 1:30 p. m.

(The early boat is better, because the competitive sports events will be played in the morning.)

Two diamonds have been reserved for the base ball games of the Telephone Company's teams

It will be a great day, not to be missed on any account

Tickets 35 cents. Children 25 cents



Yours for the Asking!

WRITE FOR A COPY

Mailed FREE on request.

It contains a lot of information about tools of all kinds. You'll find it handy. We'll gladly send you a copy without charge.

Mathias Klein & Sons

Canal Sta. 62 Chicago

Phone Wabash 628

To Get the Greatest Heat at the Lowest Cost



No. 32 Torch.

use "C. & L." Fire Pots and Torches. Every up-to-date mechanic knows that with our tools he can do his work better and quicker, and the more he accomplishes the greater his profits. Don't waste your profits, time and patience trying to make some worthless fire pot or torch work. Get a "C. & L." and commence making money.

Your nearest jobber will supply our line at factory price. Send for Catalog—it's free.

CLAYTON & LAMBERT MFG. CO.

DETROIT, MICH., U. S. A.

change on Tuesday, May 26th, conducted by W. A. Spencer, traffic superintendent. Mr. Spencer gave an interesting lecture, from charts, with the different statistics on the service items for the ten largest cities of the United States, making comparisons with the Detroit service for the past three years. He showed how Detroit service, which was down at the bottom of the list three or four years ago, had improved, first in one detail, then another, until now it compares well with the best cities and leads in the lowest percentage of errors. The lecture was both interesting and instructive and was much appreciated by the large number which attended, over 210 people being present, although the night was very warm. A short program followed after which refreshments were served in the café. Later all the girls retired to the dance hall, where special music was provided for dancing. As this was the last meeting until some time in September, the young ladies will be looking forward to the future parties which are always events of much enjoyment.

On the evening of June 3rd a meeting for the Walnut operators was held in the Telephone Society rooms, nearly 100 being present. After an interesting talk by Traffic Chief F. L. Johnson, Traffic Superintendent Spencer gave a short talk commending the girls for their good work for the month of May. A. J. Allen of the associated companies division of the chief engineer's office in the American Telephone and Telegraph Company in New York, who was in the city looking over peg counts and cost summaries, gave a very interesting talk and told some amusing stories. After a few remarks from Chief, Operator Leora Stevens, Main Traffic Chief E. C. Laskey was called upon for some of his funny stories, which are always enjoyed. Fred Clarke and R. C. Sackett of the traffic department were also called upon and responded readily with some of their funny stories. The following musical program was given: piano duet by the Misses Godfrey; vocal solo by Edythe Jaska, accompanied by her sister; piano solo by Helen Jaska, and vocal solo by Della Murray, accompanied by Leora Stevens. At the close of the program refreshments were served and the rest of the evening was spent in dancing.

Grand-Cadillac "Moon-Light"

At 8:05 p. m., June 11th, the United States Government Inspector called "Three thousand on, all aboard," and the Steamer *Tashmoo* slid easily and quietly away from the foot of Griswold street bearing 3,000 happy telephone operators with their friends and families. Five hundred left-overs, turned back because of no more room aboard, gazed longingly at the beautifully lighted pleasure boat "jammed to the gills" and with band playing, only to be told that they could get their money back at the box office.

Thus started the first of a series of moon-light pleasure trips which are to be given during the summer by the Detroit operators. The Grand and Cadillac girls were the sponsors for this first party.

Great credit is due the committee of Grand and Cadillac girls and their traffic chief, Mr. Belanger, for the extensive advertising and general publicity given the affair. Long before the scheduled time for departure knots of summer-attired operators and their friends began to arrive. These knots of people soon increased to crowds and the crowds to jams, until the docks and surrounding streets were completely blockaded by the mass of kaleidoscopic finery which was finally swallowed up and borne away to Sugar Island.

The one hour and a half run to Sugar Island passed quickly amid scenes of gaiety. Finzel's Orchestra kept everyone bubbling

over with enthusiasm. And Harold Jarvis, Michigan's favorite baritone, sang to the great delight of all.

Immediately after arriving at the Island dancing was enjoyed in the spacious pavilion, which easily accommodates fifteen hundred couples at one time. A very pleasing exhibition of several of the ultra-modern dances was given by Pearl Miller, an operator, and her partner, "Bud" Gutman. Miss Miller and Mr. Gutman were the recipients of the silver loving cup offered by Mr. and Mrs. Vernon Castle for the best demonstration of the new dances at the time of their Detroit appearance this spring. The return trip started at 11:15 p. m. and was made without event.

W. A. Spencer, traffic superintendent, was number 3,000, the last to get aboard. In fact, he was 3,001, but one young lady whose escort was too late got off and made way for Mr. Spencer. All but one of the committee in charge were left behind. They came after the three thousand, and so it was no use.

The Grand and Cadillac girls realized between \$900 and \$1,000 net profit on this venture. They will use a good part of this money on two mammoth all-day excursions to be given soon. These excursions will come on two consecutive Sundays. Special trains will be chartered on the Grand Trunk Railroad to take the girls to Island Lake, about thirty-five miles from Detroit. Free transportation, free eats and free everything will be given on these two excursions. A ball game between picked teams from the Grand and Cadillac offices will be played each Sunday.

The committees who handled the whole affair are as follows:

John T. Belanger, traffic chief, in general charge.

Cadillac Office—Edna Poole, chairman, Myrtle Bowen, Gertrude Schultz, Esther Harton, Alice Connolly, Marie Lenscher, Florence



FOUR BUSY STENOGRAPHERS IN DETROIT.

The proof of their being busy is manifest to an observing mind, for instead of taking off the entire hour and going home for lunch they just snatch a bit from a sandwich and sit out for a couple of minutes in the park in front of the telephone building—in time for a friend with a camera to pass along. These busy maids are Grace Smith and Bessie Buresh of the plant department, Hazel Schefneker, engineering, and Gladys Moore, plant.

Churchill, Meta Sciller, Rose Bentteau, Theresa Hoffman.

Grand Office—Irene Gannon, chairman, May Maguire, Edna Prue, Catherine Gray, Emily Pouillot, Elizabeth Lorenzen, Marie McGrath, Grace McGrath, Blanche Goshon, Bessie Tracy, May Thompson.

To them is due the credit for starting something at a pace sufficiently lively to make all other offices in the city travel some to stay in their class. R. C. SACKETT.

Detroit District

Congratulations are being extended to Clement Alexander Marantette, of the duplicate billing department, whose wedding to Alma Marie Marantette took place June 10th, at St. Anne's Church, Detroit.

District Accountant Joseph H. Brett, whose headquarters are at Grand Rapids, was in Detroit over Memorial Day, and renewed his acquaintance with several persons the image of whose features must have faded from his mind, so long had he been away. But of course, none had forgotten Joe!

About 180 Detroit high school girls and boys were entertained by the traffic department at different times from June 1st to June 4th. They were guided through the building and all the departments shown and explained to them. Refreshments were served later. The visitors were in charge of Traffic Supervisor R. C. Sackett.

Traffic Superintendent Spencer has been having parties of girl graduates from the Detroit high schools visiting at the exchange. After the girls had been the rounds of the building and had everything explained to them by the guides, they were seated at tables in the café and served with refreshments. On one of these occasions there appeared to have been a slight hitch in the commissary department, so Mr. Spencer sent a hastily scribbled note to W. E. Dawson, who was guiding a big party of sweet sixteen, which ran: "Go slow, for a while—the ice cream hasn't come yet." Mr. Dawson absently held this up to the light to read it the better and immediately was perplexed by a harmony of musical giggles. However, the ice cream arrived in time.

Saturday afternoon, June 6th, the Grand and Cadillac girls played a baseball game of five innings. The score was twelve to twelve. Irene Gannon, captain of the Grand, and Edna Poole, captain of the Cadillac, are getting their teams in good condition to play at the excursions. Uniforms are being designed, and a photographer is already on the tip-toe of expectation. (Later—The colors of the uniforms have been decided upon. The Cadillac girls will wear navy blue and white; the Grand girls gray and red.)

Minnie Neifert, long-distance operator, resigned to be married to Earl Pareil in June. Miss Neifert has been with the company for the past four years. The girls join in wishing her much happiness for the future.

Elizabeth Montheil, long-distance operator, was quietly married April 13th, to Sam Curtiss.

Marie Taylor, Walnut office, resigned in June to become Mrs. Taylor.

Lucille Beckwith, North office, resigned to be married June 17th to Will Atkinson. Miss Beckwith has been with the company four years, and has the best wishes of her co-workers.

Julia Williams, Main office, was quietly married to Ross Heslet. A number of the girls surprised the young couple at their home, 1500 Lafayette boulevard, May 24th, and showered them with some very pretty and useful presents.

Lydia Henry, West office, resigned to be married to Walter Janke on June 30th. Miss

Henry has the very best wishes of the girls at the office for a happy future.

Rhoda Bailey, Grand office, resigned to be married to Alvine George in June. Miss Bailey has been with the company four years, and leaves with the best wishes of her friends. Minnie Kasenow, Main office, was quietly married to Walter Purdie, March 18th. Mrs. Purdie has been with the company for five years. She has made a large number of friends who wish her happiness.

Fredericka Stihler, pay roll clerk, resigned her position to be married June 10th to James Pender. Mae Finan gave a miscellaneous shower for Miss Stihler May 19th, when she received a large number of very pretty and useful gifts. Miss Stihler left the office May 20th with the best wishes of all, also a large supply of rice and confetti. Mr. and Mrs.

and Mrs. Hill will live in Toledo for the summer.

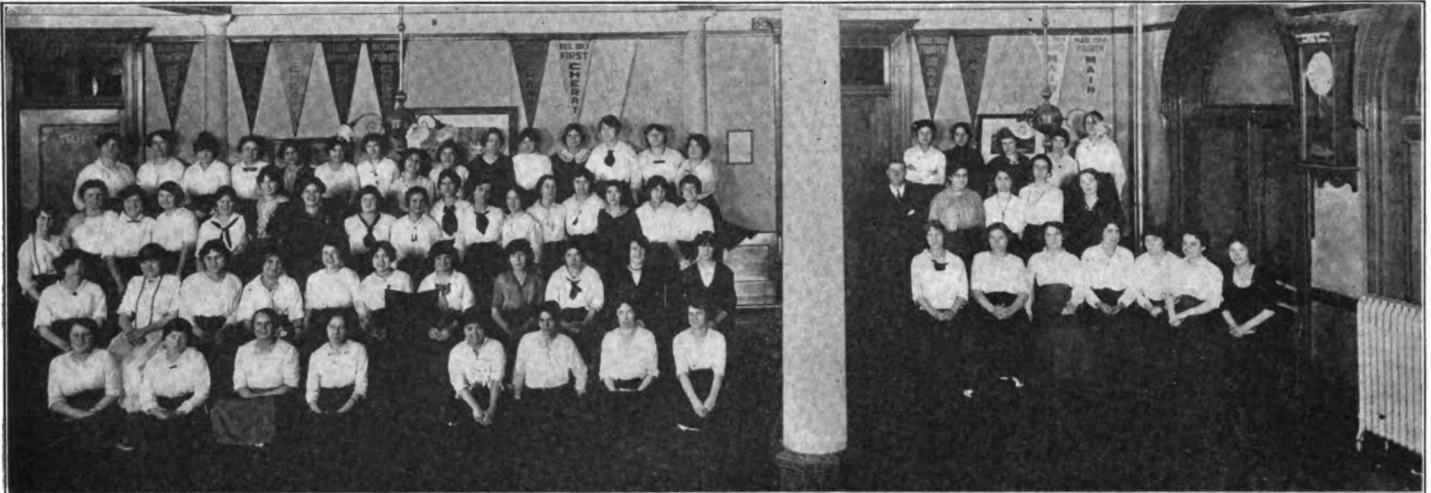
Margaret O'Brien, Main office, resigned to be married June 23rd to George Griffin. Miss O'Brien has been with the company a number of years, and has made herself very popular with her associates. Several showers were given for Miss O'Brien, at which she received a large number of pretty things. Wednesday, June 3rd, Mrs. Kehoe, a former operator, entertained Miss O'Brien with a miscellaneous shower. June 8th, Miss McCreery of the Main office gave Miss O'Brien a linen shower at her home in Windsor. June 13th, Alice Griffin gave Miss O'Brien a linen shower, and June 11th a number of the girls surprised Miss O'Brien at her home, where they had a very pleasant evening and left with her a number of gifts.

probably at Put-in-Bay, with a big spread, etc.

The second and fourth sections of the Walnut office had 100 points for the month of May.

The following operators won the prizes in the long-distance four-months contest: Recording operators: first, Anna Davis; second, Meada Myers; third, Florence Carney. Line operators: first, Irene Morrison; second, Marjorie Hill; third, Florence Welts; fourth, Helen Burke; fifth, Amy Salott; sixth, Edna Wills; seventh, Gladys Todd; eighth, Prudence Hart.

The winning section at the West exchange used the April prize money in a very enjoyable manner. The girls took a boat trip, stopping at Belle Isle for the most informal little picnic imaginable, with supper at the



MAIN A AND B OPERATORS WHO SECURED 100 POINTS FOR DETROIT OFFICE STANDING.

Reading from left to right: Top row—Ruth Noelke, Marie Patterson, Ethel McFall, Agnes Donohue, Viola Graham, Winifred Sewall, Bessie Harvey, Helen Robinson, Helen Bertie, Harriet Goudie, Rachel Butler, Florence Clark, Lena Thoms, Helen Gardiner, Viola Thibodeau, Marie Schmidlin, Ruth Schmidt, Wanda Suss, Clara Wall and Martha Hehn.

Second row—Florence Dumas, Lillian Dreschler, Grace Martin, Mary McMahon, Anna Schultz, Josephine Murphy, Martha Walker, Edith Kinzel, Eva Garewitz, Christine Roller, Bertha Roller, Bernice Lindsay, Grace Hirschstein, Pearl Kenny, Doris Hirschstein, Myrtle Orr, Loretta Smith, Traffic Supervisor E. C. Laskey, Mae Graham, Margaret O'Brien, Dolly Miller and Erna Ramm.

Third row—Helena Allen, Celina Heldt, Helen Salata, Elsa Swanhart, Mary Waincott, Frances Bayan, Ella Deslouchamp, Nina Bowles, Corinne O'Dwyer, Rose Burns, Lillian Hillmer, Bertha Harrold, Iva Brandt, Margaret Scharrett, Josephine Schuyler, Ella Burmeister, Grace Meyrells and Minnie Malzon.

Bottom row—Lillian Kastl, Grace Mason, Florence Keiffer, Myrtle Graham, Adele Deary, Amy Hamilton, Anna Regan and Edith Van Copponolle.

This picture was taken in the retiring room of the main building, where the Cherry pennants are displayed as well as the Main pennants, but the operators are all of the Main office.

Pender will make their home at 778 Seminole avenue.

Pearl Middleton, Ridge office, resigned to be married to Fred Sebulski. Miss Middleton has been with the company for six years, and her many friends join in wishing her every happiness for the future. June 1st, the girls gave her a shower at her home. Mr. and Mrs. Sebulski will make their home on Seminole avenue.

Blanch Walker, Ridge office, resigned May 31st and will be married in the near future.

Florence Cudney, Grand office, and Edmund Weisman were quietly married May 31st.

Margaret MacMillan, former instructor in the operators' school, was married to Joseph Hill at the home of her sister, June 9th. Mr.

Anna Cronin, observation operator at the West and Cedar offices, resigned and was married to Martin O'Grady, June 30th at 8 a. m., at the Holy Redeemer Church. Miss Cronin has been with the company for seven years. Her many friends congratulate her on her happiness. Mr. and Mrs. O'Grady will make their home at Magnolia and Seventeenth avenues.

The Third Main A division won the contest for May. Helen Keiffer, supervisor, and the girls intend taking a boat trip.

Cherry A First division was the winner for May. Anna Kastl, supervisor, will accompany the girls to Put-in-Bay.

Cherry B First division, has won the last two contests. Maude Meredith, supervisor, says the girls are going to have a grand time,

Casino. The weather was perfect and the party was unanimous in agreeing that their efforts to win the prize were fully repaid by the day's pleasure. From right to left in the picture the girls are: Iva Wickham, Nina Dillon, Mildred McConnell, supervisor, Ethel Bennett, Margaret Mahon and Ruth Dilla.

Gertrude Bauer, supervisor at the Cedar office, celebrated her birthday May 28th, inviting a number of the girls to her home. The evening was spent in games and music.

Antoinette Grewe succeeds Lucile Beckwith as B supervisor in the third division of the North office.

Ruby Fletcher has been promoted to evening chief operator to succeed Hazel Warkle, who resigned to take another position.

April, 1914, was a banner month for the

Safety First



Electricians' GLOVES

Tested to 4,000 and 10,000 volts before leaving our factory.

Made of Fine Para Rubber. The linemen prize them. Special gloves made and tested to higher voltages. Write for prices and details.

CANTON RUBBER CO.
Canton Ohio

NATIONAL PINS and BRACKETS

SUPPORT THE WIRES from COAST to COAST

WE make EVERYTHING in the line of

WOODEN INSULATOR PINS AND BRACKETS

Order through the WESTERN ELECTRIC CO. BRANCHES or any of the LARGE JOBBERS

NATIONAL PIN & BRACKET CO.

NORTH VERNON, INDIANA

Main office, for it got first place in the monthly rating of all offices in Detroit, achieving a perfect record of 100 points. Main office is the largest and busiest office in Detroit. As this is the first time in the history of the office that such a record has been made it is no wonder that many smiling faces look up at you from the flashlight picture that was taken in honor of the event. Two beautiful pennants were awarded the office, the regular pennant, which is allowed for a certain standing, and a special one bearing the words: "Main Exchange, April, 1914, 100 Points."

For the third time in several months, the Cherry office has won the honor of first place in the service rating of all the Detroit offices, and for May it has won the highest record, 100 points average. The Cherry office has won more pennants than any other in the city; its standings are always very high, and if it is not in first place every month, it always hovers very near the top. A pretty pennant has been awarded the office, also a 100-point pennant which is given special for this achievement.

Eastern District

George T. Kraiger has succeeded Minnie A. Daley as manager at Dexter.

A. T. Babbitt, commercial agent at Ann Arbor, has been transferred to the Detroit commercial office. The manager at Ann Arbor commends highly Mr. Babbitt's work at that exchange.

W. J. Fohey of the Detroit engineering department has completed his work at Ann Arbor, and all open splices have been closed.

Equipment Supervisor Harrington's forces at Monroe have finished the job of changing the magneto telephones to common battery sets, and the occasional plant troubles, arising since the recent cut-over, have sunk to a minimum.

Grand Rapids District

Violet Fettera, operator at the Main office, spent two weeks in Indianapolis.

Anna Voet, supervisor at the South office, spent two weeks in Milwaukee, visiting relatives.

Anna Daoust, Main evening chief operator, spent a week with her sister in Jackson.

The moving of six miles of the Grand Rapids-Mackinaw toll line between Englishville and Grand Rapids has been completed. This work, which was under the supervision of District Foreman Sam Morris, was accomplished with but four—or possibly five—cases of toll trouble due to the work. Considering that the pole line had to be moved from eight to twelve feet and that it was changed from a Class C to a class B line, this result reflects considerable credit on those responsible for the job. There were forty miles of this lead.

An estimate has been approved and work started on an additional No. 12 copper toll circuit between Grand Rapids and Grand Haven. This estimate will necessitate the placing of 1,000 ten-foot ten-pin cross arms, the stringing of 14,792 pounds, and transferring of 170 miles of wire. An estimate has also been prepared for rerouting existing toll lines in Grand Haven, and quadded toll cable will be installed. The above work will be completed before July 1st, when the heavy summer resort traffic will begin. The total cost will be \$7,225.

A phantom toll circuit is being cut in between Big Rapids and Mecosta.

The Big Rapids central office has recently been remodeled, new partitions placed, and the entire office redecorated, a counter placed in the commercial office, and new toilet room and lavatories installed. An

Operator Wins Castle Trophy

Pearl Miller, an operator at the Grand office, Detroit, won the trophy, a silver loving-cup, offered by the Vernon Castles for the best dancers in Detroit. Her partner was A. E. Gutman.

Miss Miller and her partner made such a



PEARL MILLER.

big hit with their dancing that they also received the offer of a week's engagement at the Temple Theater, a Detroit vaudeville house of high class, and accepted it. Their dancing was much applauded at each performance.

Mr. and Mrs. Castle said that they were greatly surprised at the unusual gracefulness of the Detroit dancers, and that they had seen nothing to equal it at any of the other big cities. As many as twenty couples competed for the cup won by Miss Miller and her partner, and the Castles assured the losers that among those eliminated were dancers distinctly superior to the winners in some other cities. Miss Miller and Mr. Gutman were guests at Castle House in New York for three days, where twenty-one cities competed for the final prize.

Miss Miller is back at her work at the Grand office, not at all disturbed by her terpsichorean triumphs (we knew that word terpsichorean would get in somewhere), much to the satisfaction of her traffic chief, who states that Miss Miller is a very capable operator whom he would be sorry to lose.

operators' rest room and a hot-water heating plant have also been added. These improvements being completed, Big Rapids, which has recently had a new No. 105 switchboard installed, will be among the best of this class in the state.

Jackson District.

A new two-position test desk has been installed at Jackson, which will enable trouble to be handled more promptly than with the previous equipment.

Manager Lowell Johnson at Hillsdale has been making a canvass of his territory for new farm business. One new roadway company—the first one of Hillsdale—has been organized.

Two new private branch exchange contracts have been secured at Jackson, one from the Briscoe Motor Car Company (a new company), and the other from the Crown Paper Bag Company.

During the last May storm, only one cable at Jackson went out, this having been caused by a hole which squirrels made in the lead covering.

Marshall subscribers are now making calls by number, and the system is working out well without any objections.

The Kellogg Food Company at Battle Creek has ordered a private branch exchange with two trunks and six terminals.

The Hillsdale area was visited in May by some unusually bad rain storms. Beginning at midnight on the night of the 10th, the rain fell continuously until the 13th at times in torrents. The rain was accompanied by wind and lightning. Water stood in all the low ground. At Cambria a large dam was washed out. The water back of this dam was about fifteen feet deep and covered about 100 acres. Immediately over the dam was a steel bridge which was carried away. Soon after the dam went out, the Michigan State toll line to Frontier and Ransom, which crossed the dam, went out also. The toll line was inspected Tuesday afternoon by the district and local managers in an automobile. It was found to be intact where it crossed the stream, but grounded on rural lines in Cambria and Frontier by the wind. Eight toll lines out of Hillsdale were affected by the storm at different times, but all were cleared by Wednesday noon. The storm caused about fifty cases of local trouble, and soaked a fifty-pair cable causing trouble for about fifty or sixty other subscribers. All of this trouble, however, was cleared by the 18th.

Toll connection has been made at Jackson with the Citizens Telephone Company of Concord, now to be known as the Concord Telephone Company. The Michigan State toll station at Concord has been discontinued. Similar arrangements have been made with the Springport Telephone Exchange Company.

The operation of cutting over from the old Marshall office in the Commercial Bank block to the new quarters in the Mutual block occupied scarcely a minute on the afternoon of May 29th. The work of equipping the new office began about six weeks ago. A No. 3 magneto board was replaced by a No. 105 magneto board, the cut-over being completed in the daytime, there were two cases of subscribers' conversations being interrupted, but the manager, Austin Elwood, hastened to volunteer explanations and there was no complaint.

H. B. Hawley, recently appointed manager of the Union City exchange, and Florence Brooks, of Jackson, were married Monday evening, May 24th. The wedding was a quiet one at the home of the bride's parents. The operating forces offer hearty congratulations. Mr. and Mrs. Hawley will reside in Union City. Mr. Hawley was appointed manager at Union City May 5th, succeeding P. E. Ganson.

Kalamazoo District

Management of the Vicksburg exchange has been transferred temporarily from Raymond Conway to W. H. Badour.

TELEPHONE WIRES

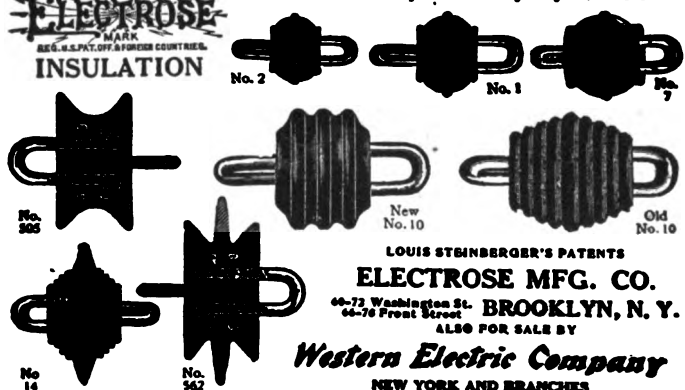
ENAMEL, SILK, COTTON, **Magnet Wire**

PROMPT DELIVERIES

ROME WIRE COMPANY
ROME, N. Y.

TRADE MARK
ELECTROSE
INSULATION
REG. U.S. PAT. OFF. & FOREIGN COUNTRIES

INSULATORS 1,000 TO 1,000,000 VOLTS



LOUIS STEINBERGER'S PATENTS

ELECTROSE MFG. CO.

66-72 Washington St. BROOKLYN, N. Y.
66-76 Front Street

ALSO FOR SALE BY

Western Electric Company
NEW YORK AND BRANCHES

W. A. Badour has been appointed manager to Eau Claire, succeeding W. Bradish.

District Manager E. P. Platt called a meeting of the employees of the three departments of the Kalamazoo exchange in the Commercial Club rooms in the Press building, May 6th. It was a "Get-together-Meeting." A. E. Huntley, manager at Benton Harbor, gave a short talk on the method of conducting a similar meeting at his home exchange. May 20th an ice cream social was held and a committee was appointed to investigate and consider forming a Telephone Society at the Kalamazoo exchange. Another meeting is to be held in the near future.

A traffic conference was held at Kalamazoo for the district May 8th and 9th, the chief operators from our exchanges and those of the connecting companies in the district being present. The conference was conducted by L. J. Walley and H. V. Weed.

The severe electrical storm at the beginning of May visited all the exchanges of the Kalamazoo district, but only one bad case of trouble from lightning resulted.

The Kalamazoo plant department has been taking up in regular meetings, in addition to other topics, the subject of "Safety First." A demonstration has been given in the use of the pulmotor, recently purchased by the Railway and Light Company.

Effective June 9th, the management of the Plainwell exchange was transferred from F. C. Gest to J. H. Frederickson.

Lansing District

Lakeland toll station has been discontinued. This station should be listed in the tariff and route book as Class D station on Howell.

The new traffic agreement with the County Line Telephone Company at Cohoctah has been closed.

Zetta Rayton, local operator at the Howell exchange, recently spent a week at Crooked Lake, camping.

Julia Abramson, chief operator at Howell, accompanied by Mrs. Celia Townsend, local operator, attended the chief operators' convention at Lansing May 12th and 13th.

The telephone offices at Howell have been elaborately improved. The company has spent a lot of money on the changes, much to the satisfaction of the operators and the approval of the public. As one of the local newspapers put it, "the ladies who have



A QUALIFIED RIG.

Here is the rig used during the construction of the line to Plant Superintendent Sharpe's telephone at New Buffalo, where he has a place, recently acquired. The rig was the only one which could be secured in the village. The men had to walk, as the pony was not strong enough to pull them with the loaded wagon. The man in the center is Lineman Joe Frederickson, of Niles.

charge of the hello business in this city have things just about as convenient as any girls anywhere."

The estimate for rebuilding the Howell exchange is practically complete. The residents are well pleased with the way the telephone company has cleared up many of the streets by removing duplicate poles.

The five-day notices mailed at Howell May 1st were less by thirty than those mailed a month previous, showing an encouraging improvement in collections. The Howell party lines have been re-graded with a saving of eight circuits, and subscribers all seem well pleased with the service.

The last two weeks of May were unusually busy ones among the operators of the Lansing district, as during that period following the chief operators' conference the new bulletins were read and placed in effect. The chief operators and supervisors who were at the two days' meeting at Lansing were unanimous in declaring it the best and most instructive conference they ever attended.

Marquette District

The plan of receiving payments from subscribers at the office or by mail has had splendid results in Marquette.

Repairs in toll leads damaged by forest fires were made promptly.

C. C. Brown has opened a new toll station at Coalwood.

The Munising Telephone and Electric Company has opened a toll station called Percy, one-half mile west of Chapman.

L. H. Blackburn was transferred from the Detroit toll test room to take charge of the Marquette toll test room, as of June 1, 1914, in place of J. F. Damp.

Menominee District

The toll station at Alpha was connected May 20th. This station was moved to Alpha from Mastodon.

Due to the energies of the mayor, business in Menominee is booming. A marked gain in telephone subscribers has resulted, placing the exchange beyond the 1,000 mark.

The Menominee four-party line subscribers have been regraded to two-party.

A new scheme has been started at Menominee to keep a closer supervision on the company tools. Each man is made more directly responsible than heretofore for such tools as he actually uses, and the new order has resulted in marked economy.

Many of the party-line subscribers at Escanaba have been regarded to a better class of service. Toll business took a big leap during April.

At Iron Mountain the local plant conditions are good, in spite of forest fires, which caused thirty-eight cases of trouble in fifteen days. The weather was dry, with strong south winds, when the fires began, and the telephone results were that we lost sixteen toll poles near Florence, eight at Iron Mountain, and four others between Iron Mountain and Hermansville. Our local force saved a number of poles by getting out and fighting the fire. Poles completely destroyed were replaced quickly, permanent repairs being made wherever possible. Total damage by the fires in Northern Michigan will run into the millions. The town of Nadeau lost two hotels and the Nadeau Township Telephone Company lost several telephone instruments.



OUR BUSINESS is to perfect and manufacture Tools and Devices to save TIME, MONEY and LABOR in the construction of Telephone Lines.

The Western Electric Company and all leading Jobbers handle them because they make for ECONOMY. Why don't you specify them?

OSHKOSH MFG. COMPANY
OSHKOSH, WIS.

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

THE EVERSTICK ANCHOR CO.

ST. LOUIS, MO.

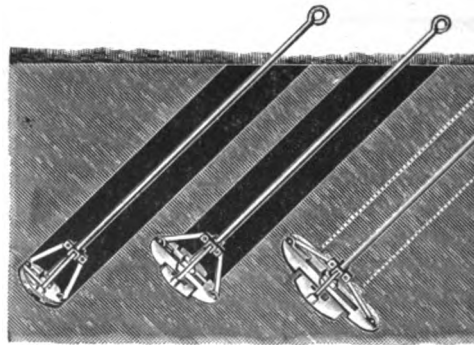


Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.

Petoskey District

A traffic conference was held at the Cushman House in Petoskey, May 21st and 22d. The chief operators from all of the toll centers in the Petoskey District, together with the chief operators from Sault Ste. Marie and St. Ignace, in the Soo District, were present. Traffic Supervisors Walley and Weed of Detroit conducted the instruction work, which covered a wide scope. Charts and bulletins were used and it was the opinion of those present that the conference was a great success.

Work on toll-line additions between Petoskey and Boyne City is well under way, under the direction of Foreman Haywood.

June 5th, at about eight o'clock in the evening, fire started in the rear of the Kane Drug Store at Cheboygan, in the building adjoining our central office. The huge volume of smoke and flame gave the fire an unusually dangerous appearance. Notwithstanding this the Cheboygan operating force did not hesitate to stay at the boards and handle the unusually large number of calls which quickly originated.

The Ferederick Mutual Telephone Company, under the direction of its president, Mr. Gardner, is developing rapidly. Lines for thirty-five additional subscribers are being built.

The Petoskey district now boasts of several automobile experts. Each one is a specialist in some particular line. District Foreman Williams has succeeded, after a great effort, in training a Ford car to make long jumps over open culverts. For the benefit of those interested in this phase of automobilism, it may be said that Mr. Williams finds that this stunt is accomplished most easily at the hour of 2:30 in the morning. H. J. Johnston, of the Traverse City exchange, has obtained the record of making the distance between Cadillac and Traverse City with the largest number of punctures. The official records show that the number of bad spots in the tires total six, but there is a feeling that the official account is not correct and that the three days taken to drive the fifty miles between Cadillac and Traverse City were spent mostly in repairing tires.

The District offices are now permanently located in rooms 7 and 9 of the second floor of the Bockus building, at the corner of Park and Lake streets. The quarters were thoroughly renovated and redecorated by the owner, Mr. Bockus, who was formerly connected with the Swaverly Telephone System.

The Onaway-Alpena Telephone Company reports that an order has been received from the Limestone Company for a private branch exchange board with fifteen terminals and an ultimate capacity of fifty.

General Manager W. D. Hickin of the Traverse Bays Telephone Company has resigned from that company to become plant chief at Kalamazoo. Mr. Hickin has faithfully and efficiently served the Traverse Bays Company and the telephone people in the vicinity of Central Lake will miss him.

George Withers, who for two years was with the construction department, has joined the Petoskey district force as cableman. Mr. Withers' home is at Charlevoix. S. A. Mudge of Central Lake has accepted the position as cableman's helper.

The Cadillac operators gave a dancing party April 30th in the Knights of Pythias Hall, and the occasion was greatly enjoyed by a large gathering of subscribers in addition to the operating force. The hall was decorated with streamers, large blue bells and palms, all together making a very attractive appearance.

Charles Swaverly, formerly of the Swaver-



ROLLIN T. WHITE.

Rollin T. White has been appointed district manager at Sault Ste. Marie, in place of E. E. Michael, who recently resigned to go into business on his own account. Mr. White's experience with the telephone company has been short, but that it has been eminently satisfactory is evident by this appointment to a district managership.

He came to the Michigan State Telephone Co. in September, 1910, and began telephone work as a "subscribers' representative." Later he was made a private branch exchange salesman in Detroit, and then put to rate adjusting at different cities in the state. In August, 1911, he went to Grand Rapids as special agent for C. E. Wilde, the district manager, returning to Detroit with Mr. Wilde when the latter became commercial superintendent, and on April 21, 1912, he was made local manager at Houghton, in the upper peninsula. In August of the same year he again became special agent at Grand Rapids, and shortly after the redistricting of the state at the beginning of this year came to Detroit to occupy a position in Commercial Superintendent Welch's office.

Mr. White, before he became a telephone man, was salesman with the Washburn-Crosby Company, flour manufacturers, to which firm he went after he left Yale University. He was born at Brattleboro, Vt.

The "Soo" district comprises the counties of Luce, Chippewa and Mackinac, in the upper peninsula, with four Bell exchanges, at Sault Ste. Marie, Newberry, Mackinac Island and Newberry. It occupies, roughly, 3,500 square miles.

ly Telephone Company, which was bought by the Michigan State Telephone Company in 1912, has taken over the operation of the Hotel Seiting at Kalkaska.

The Burdickville toll station burned May 28th, and as there was very little business at this point it has been discontinued. In future this place will be listed as a Class D station on Maple City, a "connecting" exchange owned by C. J. Bloom.

Port Huron District

Elsie Chamberlin, toll operator at the Mt. Clemens exchange, has resigned.

Toll line additions and repairs between Mt. Clemens and Algonac, amounting to \$8,631, will be started soon.

Margaret Haller, chief operator at the Mt. Clemens exchange, and Kathryn Defenbaugh, evening chief operator at the Mt. Clemens exchange, attended the chief operators' convention at Port Huron and report a very enjoyable as well as a beneficial visit.

The Consolidated Telephone Company has discontinued the toll stations at Canboro, Huron County, and Elmer, Sanilac County. Elmer should be listed as a Class D office of Sandusky and Canboro as a Class D office of Elkton.

Roy E. Crowe has succeeded T. D. Coe as manager at Romeo.

Saginaw District

L. J. Bowerman, toll line repairman at East Tawas, has been transferred to Bay City and is succeeded by Fred. Yanna, formerly toll line repairman at Turner.

Etla Lonsberry, night operator at East Tawas, resigned her position June 1st and was succeeded by Earl McElheron, student.

Material is being received at East Tawas for a No. 104 copper circuit between East Tawas and Harrisonville.

Gilmore, in Isabella County, formerly shown as a Class D office on Clare exchange, should now be shown as a Class D on Weldman exchange.

Saginaw toll business for April was \$350 more than for the same month last year. Another interesting fact is that the company's toll office business has dropped from \$300 to \$99, a saving undoubtedly due to the discontinuing of the three departments.

Two new private branch exchange contracts were secured at Saginaw for April. Hard work on extension telephone development at Saginaw last month resulted in a satisfactory advance.

The organization of three roadway contracts for subscribers to connect with the Bay City exchange has been started. There is also a likelihood of a connecting company at Munger, at present served by farm lines from Bay City. At least sixty subscribers should be secured at Munger if the plan goes through.

Sault Ste. Marie District

The recent inspection of the toll lines in this district shows very little work to be done. There are some trees to trim and a quantity of glass to replace. The cross arms and poles will need no attention during the next year. Toll trouble has been felt since the patrol of the toll lines last fall.

Roadway Company Notes

A contract has been signed with the Hortons Valley Telephone Company to connect twelve subscribers with the Michigan State Telephone Company's exchange at Boyne City.

The "French" FOLDING DOOR Telephone Booth

(Patent Pending)

PROTECTION FROM INJURY: The point where the two leaves of the FOLDING DOOR meet is of such design as to prevent any possible chance of injuring the fingers. This feature makes the FOLDING DOOR booth a practical proposition.

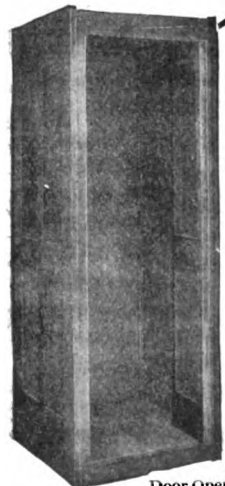
Write for booklet describing the advantages of the "Folding Door" Booth

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

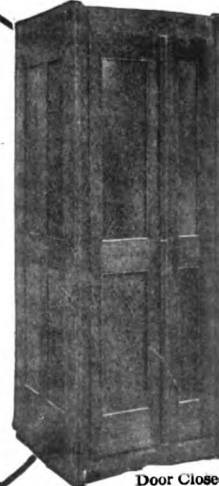
DISTRIBUTORS:

Western Electric Company

Houses in all principal cities



Door Open



Door Closed

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments

**Yards from Maine
to Washington**

**National Pole
Company**

Escanaba, Michigan

When you want a Lock
you want the best.

**EAGLE
LOCK
CO.**

MANUFACTURERS OF
LOCKS
for all purposes.

WOOD SCREWS

Factories
TERRYVILLE, CONN.

Warehouses
**NEW YORK
CHICAGO
PHILADELPHIA**

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



**"Thomas Quality"
Porcelain Insulators**

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

Offices in all principal cities

Why Are "Always Re-
liable" Torches and
Furnaces Best? Because

No. 25 Quart
No. 26 Pint



they are
made only
from the
best mate-
rials ob-
tainable
and are guar-
anteed to be in
perfect condi-
tion when they
leave our fac-
tory.

They are fit-
ted with our
PATENTED
Never Leak
pumps.

Combina-
tion torches
are fitted with
PATENTED

"One Piece" soldering iron holders.
Write for catalogue. Manufactured by
OTTO BERNZ, Newark, N. J.

CROSS ARMS

AMERICAN CROSS-ARM CO.



CHICAGO

ALL KINDS

YOU'RE WASTING TIME

If You Haven't Started Using
FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



No. 2571	Each
Doz. lots	20c
100 "	12c
500 "	11c
1000 "	10c

Frankel Display Fixture Co.
Hudson and Vesey Sts.
NEW YORK CITY

Incorporated 1911

**ALBERT G.
SEEBOTH
COMPANY**
MILWAUKEE, WIS.

Manufacturers of

**Cotton Batts, Cotton
and Woolen Waste**

Phone Hanover 532

Place your orders with us,
we save you money.

"Beldenite" Rubber Insulated
Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Taps and Terminals.

CORRESPONDENCE INVITED

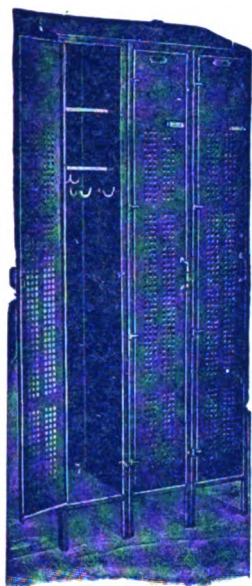
BELDEN MANUFACTURING COMPANY
2318 South Western Avenue,
CHICAGO

ADVERTISING

In the

**Bell Telephone
News**

**BRINGS
RESULTS**



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They cannot keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of a heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau St.
New York, N. Y.

ANCHORS



that hold more, cost less, don't creep, easier to install. That's the story of the **Bierce Anchor**.

PROOF

All the big, live companies are using them, and lots of them. If you are not, you ought to get in on a good thing.

Write us for testimonials.

Pat. Aug. 19, '13.

THE SPECIALTY DEVICE CO.
112-14 W. 3rd St., Cincinnati, O.

The Pittsburgh Shovel Company PITTSBURGH, PA.

Manufacturers of

SHOVELS SPADES SCOOPS

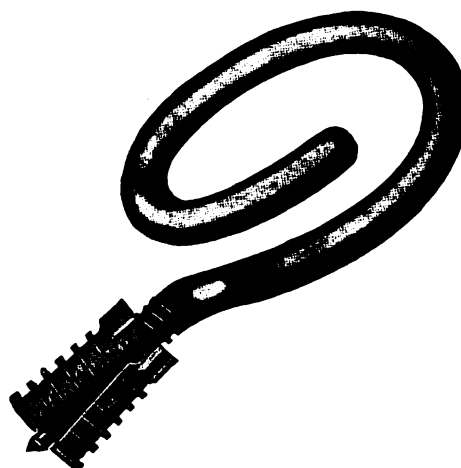
All Styles for Every Class of Work. Our High Grades Fully Warranted.

**Telegraph Shovels and Spoons
a Distinctive Specialty**

WRITE FOR PRICES

Suite 1832 Oliver Building, PITTSBURGH

"Flex-Enam." Bridle Rings



Have you experienced trouble with enameled bridle rings chipping? Try the kind that will not chip—"Flex-Enam." Bridle Rings.

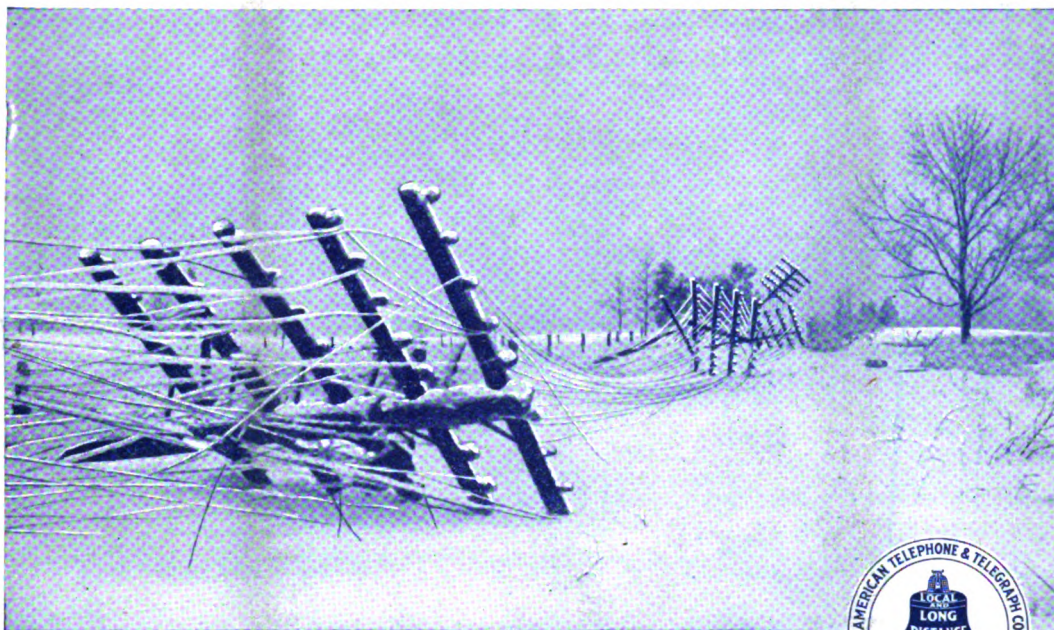
"Flex-Enam." Bridle Rings are coated by a process which produces a flexible glass coating impervious to weather conditions and perfect insulation without danger of chipping.

Diamond Expansion Bolt Co.

MANUFACTURERS OF
DIAMOND SPECIALTIES

90 West St., Cor. Cedar St.

NEW YORK



The Telephone Emergency

THE stoutest telephone line cannot stand against such a storm as that which swept the Middle Atlantic coast early in the year. Poles were broken off like wooden toothpicks, and wires were left useless in a tangled skein.

It cost the telephone company over a million dollars to repair that damage, an item to be remembered when we talk about how cheaply telephone service may be given.

More than half of the wire mileage of the Bell System is underground out of the way of storms. The expense of underground conduits and cables is warranted for the important trunk lines with numerous wires and for the lines in the congested districts which serve a large number of people.

But for the suburban and rural lines reaching a scattered population and doing a small business in a large area, it is impracticable to dig trenches, build conduits and lay cables in order that each individual wire may be underground.

More important is the problem of service. Overhead wires are necessary for talking a very long distance. It is impossible to talk more than a limited distance underground, although Bell engineers are making a world's record for underground communication.

Parallel to the underground there must also be overhead wires for the long haul, in order that the Bell System may give service universally between distant parts of the country.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

